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THE

AMERICAN

AGRICULTURIST:

DESIGNED

TO IMPROVE THE PLANTER, THE FARMER, THE STOCK-BREEDER,
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AGRICULTURE IS THE MOST HEALTHFUL, THE MOST USEFUL, AND THE
MOST NOBLE EMPLOYMENT OF MAN.—*Washington.*

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THE AMERICAN AGRICULTURIST.

Agriculture is the most healthful, the most useful, and the most noble employment of man.—Washington.

VOL. IV. NEW YORK, JANUARY, 1845. NO. I.

A. B. Allen, Editor. Saxton & Miles, Publishers, 205 Broadway.

TO EXCHANGE PAPERS.

As a great majority of the papers with which we exchange are of little benefit to us, we shall expect all those that wish to continue to receive this periodical, will give a favorable notice of it under their editorial head, and one insertion in their advertising columns of its prospectus, which will be found on the last page of this number, and send such papers to our office marked and done up outside so as to catch the eye at once. All journals not requested to continue the exchange may then stop their paper, although they will be sent the Agriculturist monthly, till they receive a number for January, 1846. The reason for our making this request is, that we have not time to look over the greater part of the papers sent us; we wish, therefore, to save them the trouble of enveloping them for us. We are greatly obliged by the kind notices of the press, and solicit a continuation of them, and shall be happy to reciprocate their favors in any way in our power. Any single article which may appear in their journals likely to interest us personally, or benefit the cause of agriculture, they will greatly oblige us by sending it to this office conspicuously marked and done up outside.

All editors, when agreeable to them, will please act as agents for us, taking the commissions allowed by the prospectus. In so doing a mutual benefit will be conferred. Our paper has scarcely yet been heard of in many parts of the country, and we shall be under many obligations to our cotemporaries if they will aid in making it more widely known. This can easily be done by a little effort; and as it is a work of great utility to the farmer, and does not come in competition with the newspaper press, we trust they will extend to us their generous aid.

TO THE FRIENDS OF AGRICULTURE.

With this number commences the Fourth Volume of our journal, and in again appearing before you, we trust we shall have your renewed exertion in its behalf. Nearly all the contributors to this periodical are practical agriculturists, and speak of such things only as they are in the daily habit of performing; while others are known and esteemed for their advances in those sciences which directly benefit the farmer, and add to his power of production. The monthly perusal of such a work as this by the agricultural class, is not only of incalculable benefit to each member of it individually, but to the country at large. All, therefore, who exert themselves in the spread of this paper are doing a public good, and in making it more generally known, will be conscious of having performed a highly meritorious act. There are thousands of farmers throughout the country who do not yet see an agricultural periodical. Let every person, then, whose eye may rest upon this page, make unceasing efforts to bring one to their notice, and induce them at least to read, if they will not subscribe—trusting that they will ultimately be convinced of what is for their true interests.

Thus far we have scarcely published a word of the many highly flattering things said of this periodical; we chose to let it take its own silent course, and find such favor with a discerning public as it best might. Three handsome bound volumes are now given to the world by which to judge of it, and of these, one of the most distinguished practical farmers of the South thus writes us: "Permit me to say, without intending anything like flattery, that I regard the American Agriculturist as standing AT THE HEAD of our agricultural journals; and it has been so well sustained, that there has appeared to be no necessity for me to contribute a line to its pages." Another from the North says: "I am greatly indebted to your paper for the many practical details found therein. Its highly valuable and useful articles have directly benefited me many a dollar, and I monthly con its pages with as much eagerness and pleasure, as a young lady does the last new romance fresh from the pen of the most popular novelist."

We have recommenced the Ladies' and Boys' Departments, which are rather novel features in an agricultural journal. To the former we have promises of assistance from some of the most distinguished female writers of the day—those who are no less celebrated for their excellent knowledge of housewifery, practical good sense, shrewdness of remark, than happy manner of conveying instruction. We solicit contributions from others, and let them come from the South as well as the North. We shall consider ourselves quite unfortunate if the ladies do not ably sustain the department which we have exclusively accorded them as their own.

The engravings of the present volume will be continued as now begun, and will embrace more utility, originality, variety, and elegance, than has yet been presented to the public in any similar journal; and the matter, we humbly think, will be found equal to the embellishments. We begin the year with a very promising subscription list, which it shall not be our fault if it do not prove the largest in the Union—we at least mean to deserve such. Travelling agents will do well to give this work a preference; it is very popular where known, and in addition to it they can be furnished with other agricultural publications with which they cannot fail to be successful.

A TRIP ON LONG ISLAND.—NO. I.

It was a warm bright morning, early in the delightful month of October, that we took a seat with our friend Mr. Cadmus, in the rail-road car at Brooklyn, bound on a little excursion up Long Island—a singular tract of country, embracing considerable variety of soil and scenery, and making a ramble over its sea-girt hills and plains one of no little interest and variety.

We started at a rapid pace, and within 30 minutes, or so, were in the pleasant village of Jamaica, and then shortly whirling over the wide naked plains of Hempstead; which remind us more than any other spot we know of in the United States, of Hounslow Heath, in England, the celebrated scene of many a highwayman's exploits in the last century. From thence we passed quickly into the pine woods and shrub-oaks of Huntington—a surprisingly wild place, when we consider its contiguity to this great city—and at the end of an hour and a half from Brooklyn, we brought up at Deer Park station, about 40 miles from New York. Here a grey nag, harnessed to a light wagon, was in waiting to take us to Mr. Cadmus's residence, six miles beyond; and then the way he commenced spinning its wheels through the shrubby forest, over the delightful, dry, hard, gravelly roads, was scarcely inferior to that of the never-tiring iron horse with his long rumbling train, which we had just left, to pursue his onward, fiery way, at nearly a right angle to our own. And why should he not, seeing he was of the famous Engineer breed? Of the same blood as the renowned Lady Suffolk, who has trotted her mile in 2 minutes and 26 seconds—a pace which it would puzzle many a clever horse to *run* in the same space of time.

Mr. Cadmus's farm is pleasantly situated almost in the village of Comac. It contains 150 acres, nearly equally divided between arable and woodland. The surface is prettily undulating; the soil of a light loam, alternated with some clay and white gravel. Mr. Cadmus has done much for this spot in the way of fertilizing the soil, draining his meadows, and setting out upward of 4,000 of the best varieties of fruit trees, which we found growing remarkably well. He raised a fine crop of corn here, this season, with a slight manuring; the hay also and other things turned out quite well. He thinks he has discovered a marl bed on this farm, as the specimen he has taken from it effervesces in vinegar. If it proves such on analysis, it will be the first we have heard of as having been found on the Island.

Farm of Mr. Caleb Smith.—This is a short distance from that of Mr. Cadmus, and is delightfully situated on the middle turnpike road, running through the whole length and near the centre of the Island. It contains 1,500 acres, 300 of which is under cultivation, and 1200 in woodland. That so large a portion of a farm should be left in wood, or what is termed "sprouts," may seem singular to many of our readers; but they must recollect that such land is of so light a soil, that there is no particular advantage at present, in cultivating it, they therefore leave it to grow up in wood, which, before coal became so cheap, was an excellent crop. It is cut clean over every 15 or 20 years, and yields 10 to 15 cords of fine hard wood per acre, worth formerly $2.00 to $2.50 per cord, standing. At the ordinary value of land this was a fair interest upon it; but since wood has fallen of late years, it has somewhat reduced the price of these lands, or rather, perhaps, they have not risen in the same ratio as those of a richer soil, and more susceptible of a profitable rotation of the ordinary farm crops.

The 300 acres which Mr. Smith has under cultivation, is of a good quality of land—some of it very superior. It is divided into convenient fields, well-fenced, and kept in the very nicest order. His crops are heavy; corn generally 40 to 50 bushels per acre, and other things in proportion, which is a good yield for Long Island. The stock consists of a flock of fine sheep; the polled breed of cattle; and large, thrifty white pigs. The buildings are all excellent and commodious, and there is an air of thrift, neatness, and good order pervading the whole premises which cannot be too highly commended. Indeed, we think Mr. Smith one of the best farmers of our acquaintance. He has been making some experiments with manures the past season, which he intends following up more particularly hereafter, the effects of which we hope to be able to record in our journal Sheep are unquestionably his best stock, and were the farm ours, we should stock it heavily with Merinos, plow only when the fields were well enriched by them, and then merely sufficient land to raise the roots and grain necessary for the actual consumption of the people and stock on the farm. The products to be sold with this system would be wool principally, with now and then a mutton and a beef. Under this system, the labor bills would be comparatively small, and there would be no manure to purchase, save a few tons of plaster for the clover, and some ashes for a top dressing to the grass lands. We are persuaded that fine woolled and mutton sheep are the best crops for all light soils, even with a prospect of these products falling 25 per cent. below present prices, so long as grain and hay remain as low as they now are. We are not sure, either, that the woodlands would not pay better than they now do, turned into sheep pastures. We recommend at least the trial of a few acres of such by underbushing them, and cutting out all the small wood, leaving good timber trees only; then sowing orchard grass (which grows well in the shade), red-top, and clover; spread two or three bushels of plaster on this to the acre, let it get well set, then turn sheep upon it. The growth of the timber under these circumstances we think would be worth half as much as the whole of the wood, as the land now stands; and the pasture, if we are not too sanguine, would turn out from $2 to $3 worth of mutton and sheep per acre every season, which would more than double the present income—at least from the better quality of this kind of land, and in addition be constantly enriching it. These are important considerations to the Long Island farmers, and we hope they will give the matter here recommended a fair trial. We shall probably have more to say on these matters hereafter.

Farm of Mr. Edward Henry Smith.—This farm embraces about 400 acres, and is situated in Smithtown, on Nissequague Neck, about seven miles from Comac, up the Sound. It is naturally a very fertile tract of land, a considerable portion of it being a rich alluvial. Mr. S. has his farm under a high state of cultivation, and it produces good crops. Nor does he trust to the natural fertility of the soil for all this. He keeps a large stock to eat up his produce, and make manure, which he can the more easily do in consequence of having quite a tract of salt meadow in front of the upland, which is annually mowed, and the hay fed out principally to the younger animals. It is a good kind of stock hay, and all animals are very greedy for it as a change, and thrive well upon such fodder. Large quantities of sea-weed are gathered here, of which composts are made; it is also used to litter the barn-yard. In addition to this, there are thick beds of oyster shells deposited by the Indians on different points of the farm, which Mr. S. has not yet disturbed. He thinks they will be valuable sources of manure, and intends hereafter to avail himself of them.

The dwelling-house is a fine old building, with gambrel-roof and dormar-windows, and is handsomely situated in an open park near the bay. The farm-buildings are extremely comfortable and well-arranged, with long rows of excellent sheds, and ample subdivided yards, thus enabling Mr. S. to keep his young and old stock separate. We took a sketch of these buildings, and shall have it engraved for our paper hereafter.

Stock.—We found here some excellent horses, very fast trotters, of the Engineer, Mambrino, and Messenger stock; Durham cattle, and crosses of the same, together with an ox of such extraordinary dimensions, that we think he would even astonish a Kentuckian, though fresh from the excavation of a huge mastodon. We should judge him 6½ feet high over the withers, 13 feet long from the tip of his nose to the end of his rump, and of a girth probably of 10½ feet; and the joke of the matter is, he is still a youth and not done growing. The swine we noticed were nearly all Berkshires, or crosses of a Chinese boar lately imported. The former are much the handsomest animals, though the latter are equally, if not more thrifty. Our great objection to all the pure Chinese we have lately seen, is, they are hollow-backed, and have too much belly. The China ships bring more or less of these animals into this port every year, and to such of our friends as have made inquiries for them, we can say, that any of those we have seen are not worth their possessing. They are not to be compared in point of form to the improved Chinas we formerly bred at Buffalo.

On this farm we found large orchards, which, indeed, are very general on all farms on Long Island. The apples are principally fed to the stock. As an evidence of the great durability of locust and cedar, Mr. S. showed us two posts of each of these kinds of wood, which were planted in 1725, 119 years ago. The former is still sound, the latter rotted off near the ground, but sound elsewhere.

At Mr. Joel L. G. Smith's, 3 miles above, we found an excellent farm; but we had only time to stop and examine a superb pair of Durham oxen which he was fatting, and Young Mambrino, a splendid roadster stallion of a blood bay, about 16 hands high, very fast, and possessing a fine action.

We had now got fairly embarked among the Messrs. Smiths, of whom they jocosely say there are two tribes on Long Island—the Bulls, and the Tangiers. The latter take their name from a former governor of the island of Tangier, who crossed the Atlantic and settled here many years ago. The ancestor of the former came direct from England, and settled in this country when it was possessed by the Indians. Wishing to purchase some land of the aborigines for a settlement, the chiefs of the tribe holding dominion here, assembled in council, and informed Mr. S., that for certain articles of merchandise, he might have as much land as he could ride round on a bull from sun to sun, thinking that they had thus insured themselves an excellent bargain. He took them at their word, and one bright summer morning, saddled and bridled a beast which he knew to be docile, of great speed and endurance, and away he strode. By the time the sun had gone down he had accomplished 40 miles, encircling the whole of Smith-town, one of the finest and most fertile portions of Long Island, and just 10 miles square. The Indians immediately gave him a deed of it, and with it added the patronymic of the Bull Smith—and hence the local name. But Bulls or Tangiers, we found them an excellent set of fellows, and right sorry were we that our time was so limited among them. Riding bulls, however, was more fashionable in those days than now; for according to tradition, many a handsome young bride, not only on Long Island, but in Massachusetts and elsewhere, rode home with her husband after marriage on the broad cushioned back of a stately bull. Passing a holiday on the farm of an uncle of ours, when a mad cap school-boy, we too once essayed a bull-ride; but as it would be a long story to tell, and has little to do with farming, and moreover, did not turn out quite as fortunately as the renowned Smith's, we shall forbear relating it in these pages.

THE COTTON TRADE.

Professor McCay, of the University of Georgia, in a well-considered article in the Merchants' Magazine, thus sums up the probable production of Cotton for the past year, and its probable consumption for the year to come.

		Bales.
United States Crop, - - - - - -		2,460,000
English Import from India, - - -		150,000
English Import from other places, -		140,000
	Total Supply,	2,750,000
		Bales.
Wants of the United States, - - - -		370,000
" France from the U. States,		420,000
" the Continent from "		180,000
" of England, - - -		1,480,000
		2,450,000
	Excess of Supply,	300,000

Mr. McCay anticipates that this additional burthen will be felt very severely. We must confess that we think so too. Since he wrote his article, cotton has fallen considerably, and is at this moment according to quality, from ⅛ to ¼d. per pound lower than ever before known in England, and full ¼ to ½ of a cent in our own country.

If our planters go on increasing their production, cotton will soon not be worth over 2 to 5 cents per lb., according to quality, on the plantation. At this price no man can live by it. What is the remedy? Simply, raise less of this and more of other products. Here is one thing for example. We believe that a pound of fine Merino wool may be raised in that part of the south suitable for keeping sheep, as cheaply as 3 pounds of cotton can be grown. The former would be worth 40 cents on the plantation at the lowest, the latter not to exceed 12 cents, which makes a difference in favor of wool-growing of more than 300 per cent.

But we hear the planters say, well, when we get to raising wool, the price of that must fall too. Suppose it does? It will still be a profitable business, even at 20 cents per pound; for sheep will enrich your lands, and fit them for other good crops, while cotton impoverishes them. Yet so long as we import wool (which we still continue to do), there is little prospect of its becoming lower; and when we have supplied ourselves, we can then look abroad for a market. Great Britain alone imports nearly, if not quite, 50,000,000 lbs. annually, and France a considerable quantity. Here, then, is a chance of a market for a long time; for we only raise now about three-fifths of what Great Britain alone imports, and it would be years before we could reach the production of 50 millions. In the mean while it must be recollected that our own consumption will be rapidly on the increase. Space forbids our pursuing this subject any further in this No., but we intend to revert to the general subject of growing wool in our next.

GENERAL AGENCY.—Mr. A. Sherman is appointed a general agent for the American Agriculturist, and is authorized to take subscriptions and appoint subagents in any part of the United States. We recommend him to the attention of our friends wherever he may go, and hope they will give him such assistance as will forward the object of his exertions.

SALE OF THE LATE MR. GROVE'S SAXON FLOCKS.—We understand that the sale of these superior and thorough bred Saxon sheep, particularly at Medina, Ohio, went off very spiritedly, and that the animals generally brought fair prices. The bucks were mostly taken at from $10 to $50 each; the ewes from $5 to $30. A few, as choice as any sold, still remain on hand, which can be had at moderate prices by application to S. A. Cook, Esq. of Buskirk's Bridge, N. Y. This is precious blood, and of undoubted pedigree, and those wishing superior Saxons, would do well to apply before it is too late.

HULLING INDIAN CORN.—It is said that the meal ground from Indian corn hulled, makes a much nicer article, and is greatly preferred not only in our country but in England, to that usually sent thither ground unhulled. The process of hulling corn, as practised among the French in Louisiana, is slow and expensive. Not long since we were informed that the same machine which is used for making pearl barley and split peas, with a slight modification, had been effectually used for hulling corn. Can any of our readers inform us as to this? If it be a fact, we should be highly gratified to receive a description and drawing of the machine. Anything that can be done to promote the sale of corn, or corn meal, in England, would confer a great benefit on our western states, this being one of their chief products.

MR. PARSONS IN EUROPE.—Samuel B. Parsons, Esq., of the extensive nursery establishment of Parsons & Co., at Flushing, Long Island, sailed for Havre last month, in the packet-ship Argo. He will be absent nearly a year, and visit France, Italy, Germany, and Great Britain. He will pay particular attention to horticultural subjects while abroad, and we shall hope to hear from him occasionally while absent. Mr. Robert Parsons, of the same firm, returned from his European tour last October.

MR. NEWBOULD IN EUROPE.—Thomas H. Newbould, Esq., one of the most extensive farmers and stock-breeders of Livingston County, recently sailed for France, with the view of making quite an European tour. He will devote much of his time while absent to the improved systems of agriculture and fine stock abroad. It affords us great pleasure to notice such changes in regard to the views of gentlemen now crossing the Atlantic, and we cannot but hope that we shall have an opportunity of making such records often hereafter.

THE AMERICAN HERD BOOK.—We beg gentlemen to recollect that we are not the proposers, and have nothing to do with getting up this work; it is, consequently, very unfair in them to tax us with HEAVY POSTAGE on long pedigrees, the record of which *they alone* are interested in. It is a pitiful way of boring us and picking our pockets to boot. By referring to page 154 of our last volume, they will see the terms proposed for inserting pedigrees. It will be a laborious and ungrateful task to whoever undertakes it; and it was expressly premised, that postage at least should be prepaid on all communications. In other matters in which we have no earthly concern, we are often most unceremoniously taxed. If those people who do this, had the smallest sense of justice or propriety, they would pay their own postages.

FARMERS' CLUBS.

The farmers of every neighborhood should form themselves into a club, and meet once a week during the winter for the purpose of discussing such things as tend to their mutual improvement. It is astonishing what an amount of knowledge they may thus obtain, and how greatly their interests will be forwarded. These meetings may be held at some central building in the neighborhood, such as the school-house, court-house, or a respectable tavern. But the best place, in our opinion, for a club meeting, is at the farmers' own homes; where they should be held alternately till the whole neighborhood is gone over, and then commence anew; and so keep on in regular routine. It would be well to have these meetings once a week in the winter, and once a month in the more busy season of the year. Clergymen, Physicians, Lawyers, Merchants, Mechanics, and indeed nearly every other profession associate for mutual improvement, and the furtherance of their own interests; then why should not the farmers?—the most numerous and worthy class by far in every nation, and without whom the world would soon come to an end. Unite, then, for mutual benefit and instruction in every hamlet and neighborhood—no matter how few your numbers—form yourselves into clubs. We know of nothing so well calculated to instruct you, and raise you to that rank which your individual worth and importance as a class entitle you to assume. Be you the rulers as well as the workers of the land; and allow no other class whatever in this great republic to take precedence over you, whether in the scientific or practical knowledge of your profession.

New York Farmers' Club.—At the meeting, December 14th, Mr. Wakeman presented some mummy wheat received by Wm. H. Maxwell from Egypt. It was distributed among the members for experiments in sowing another year. Some conversation took place on the diseases of animals, but nothing particularly new was elicited. The application of seaweed was discussed and an analysis of some soils was read. Dr. Field exhibited his beautiful cattle dog, which will drive either cattle or sheep.

Number of Animals annually Slaughtered in this City, and principally consumed by its inhabitants.—According to a committee of three butchers, there are 50,000 beeves, average weight 650 lbs. each, making 32,500,000 lbs.; 150,000 sheep and lambs, weight about 11,000,000 lbs.; 200,000 swine, weight 150 lbs. each, making 30,000,000 lbs.; calves were widely estimated at from 10,000 to 25,000. We do not see any account of fish and poultry, of both of which there is a great consumption.

Annual Meeting of the New York State Agricultural Society.—This will take place in Albany about the middle of this month, and continue several days. For the particulars of the programme of this, see our last volume, page 345. It will be a most interesting and important meeting, and we hope it will be well attended by all the friends of agriculture who can possibly make it convenient to do so. We understand that the hospitality of the citizens will be extended to all strangers who visit Albany for the occasion, and everything be done to make their stay agreeable.

PACKING PROVISIONS FOR THE ENGLISH MARKET.

We think we cannot do our readers a greater service, than copying the following article, addressed to Messrs. Hitchcock, Livingston, & Co., from an American gentleman now in England, who has paid much attention to the subject. If properly cured and packed, Great Britain, and her East and West India Colonies, would take nearly all our surplus provisions. It is of great importance to us, then, to adopt their most approved methods of packing, and if necessary, even to sacrifice a little to their whims and prejudices. But the English method is undoubtedly far superior to our own, and it is certain that we shall not command the market there till we adopt it; the sooner therefore it is done, the better, it will be for the interests of all parties concerned.

Pork.—This is cut into four or six pound pieces, according to the size of the hog. Where the carcase weighs two hundred and fifty and under, it is cut into four-pound pieces; large hogs are cut into six-pound pieces. The hog is first slit through the back-bone in half; then passed to the trimming-block, where the half-head and legs are cut off, the leaf and tender-loin taken out, and the whole side split lengthwise through both the shoulder and ham, and as near the centre as is consistent with the proper shape and size of the different pieces. From the block, the strips pass to the scales, where the weight is ascertained, and called to the man at the cutting-block, who divides each strip into the requisite sized pieces. Both the splitting and piercing require skill and judgment, as much depends upon having the pieces well and sizeably cut. From thence it goes to the rubbing-table, where each piece is thoroughly rubbed in salt in the same manner as in curing bacon. After the salt has been well rubbed in, it is put into pickling tubs, holding from three to five hundred pounds, well covered with salt; but no water or brine added. Here they remain from eight to ten days. It is taken to the washing trough or vat, where each piece is thoroughly washed in clean brine, trimmed, and *tormented*, as the process of trying is called. The *tormentor* is an instrument of wood or metal, the size of a small dish, and is thrust into the lean parts of each piece to ascertain that it is properly cured and free from taint. It is then messed and weighed, so that the requisite number of pieces shall weigh exactly the number of pounds for the barrel or tierce. It is then put up in the proper package, and freely salted while packing, and saltpetre added at the rate of a common wine-glass full to the hundred pounds. The last layer is pounded in by a heavy iron weight, and capped with coarse salt. It is then passed to the cooper, who puts in the head, and puts on to the barrel one, and on to the tierce at least three iron hoops at each end. The package is then filled with clean strong brine, bunged tight, branded, and is then ready for market.

The great utility of this method of curing, consists in the certainty of the meat keeping in good condition for years in any climate. The blood gets all drained out of the meat before it is barreled, and hence one great cause of injury is avoided. I saw pork and beef which had been two years in the barrel, which was as sweet as when first put up, and the brine was perfectly clear. A friend in London unpacked several packages of Irish and Hamburgh cured provisions, by the side of American. The contrast was anything but flattering to our taste or skill. I could very readily see why our beef and pork bore so bad a name in the market, and was so much of a drug. The meat was not inferior; but it was badly messed, worse cut and cured, and the brine nearly as red as blood; and presenting, by the side of the other, not a very *palatable* appearance. The large hogs, or heavy pork, which is uniformly cut into six-pound pieces, is packed in tierces, and is then called India or Navy pork. The four-pound pieces are put in barrels.

A Barrel of Prime Pork should contain from twenty-five to thirty pieces, cut from the ribs, loins, chines, and belly pieces, all lying between the ham and shoulder, forming what is called the broadside or middle. Three hams and two hind-leg pieces, or three hind-leg pieces and two hams, and fifteen or twenty pieces from other parts of the hog, except no part of the head. The meat must be of prime quality, firm, and well-fattened, cut into four-pound pieces, exactly fifty to the barrel, and weigh not less than two hundred pounds nett, and must have a good capping of St. Ubes, or other coarse salt. This is indispensable. *Bacon mess pork* is so called when the full proportion of prime pieces in *prime mess* is withheld; there are, therefore, various classes of bacon pork. Tierces contain the same number, that is, fifty pieces of six pounds, and the same rules as to messing are to be observed as in the barrel. The tierce must have not less than three hundred pounds, and well capped with salt It is usual to put in fifty-two pieces. In bacon mess, the number of prime mess pieces should be marked upon the head. No part of the hog's head is allowed in any instance.

BEEF.—This is uniformly cut into eight-pound pieces, and cured, in all particulars, precisely as pork, except a larger proportion of saltpetre is used in packing. Beef is almost entirely packed in tierces. For export, tierces only should be used.

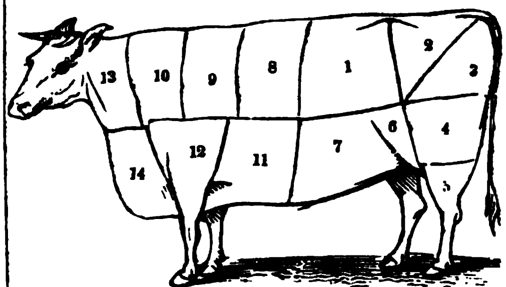
A Tierce of Prime India Beef should contain forty-two pieces, eight pounds each, and weigh not less than three hundred and thirty-six pounds nett. It should be made from well-fed bullocks, and contain thirty-two pieces of loins, flanks, rumps, plates, buttocks, and briskets; ten pieces, consisting of four chines, two mouse buttocks, two shells of rumps, two pieces cut close up to the neck, with bone taken out; no shins, thigh-bones, or neck. To be well salted, and capped with St. Ubes or other coarse salt.

A Tierce of Prime Mess Beef should contain thirty-eight pieces of eight pounds, and weigh not less than three hundred and four pounds nett. It should be made from prime fat cows or heifers; twenty-eight pieces of prime, from loins and chines, with one rib in each, flanks, rumps, plates, briskets, and buttocks; with ten coarse pieces, consisting of two neck pieces, not the scrag, two thighs or buttock bones, with some meat to them, two shells of rumps, two or even four chines, not cut too close to the neck, and two shoulder pieces with part of the blade bone in them, well salted and capped with St. Ubes or other coarse salt. The tierces, whether for beef or pork, must be made of well-seasoned oak, with eight wooden, and three iron hoops on each end.

No pains to be spared in preparing and putting up, as the neat and tasty appearances of the packages will insure a more ready sale, than if put up in a slovenly manner.

It may be useful to yourself or to your neighbors, to see the mode of cutting up the carcase of an ox in London. The provisions exported from that metropolis, rule the trade in the West India Islands, and in other distant places abroad. It is very proper, therefore, that American packers should understand the English methods.

The annexed cut will show the London mode:



CUTTING UP AN OX IN LONDON.—Fig. 1.

Hind-Quarter.	*Fore-Quarter*
1. Loin.	8. Fore-rib.
2. Rump.	9. Middle-rib.
3. Aitch or adz-bone.	10. Chuck-rib.
4. Buttock.	11. Brisket.
5. Hock.	12. Leg of mutton piece.
6. Thick flank.	13. Clod and sticking and neck.
7. Thin flank.	

14. This, properly speaking, is the brisket, and is left out in the English cut. In a good ox of the Durham breed, it is a great point, and it gives very choice pieces for packing India Beef, as they are good meat, and perfectly free from bone.

The relative value of these different cuts of an ox may be stated at their current value, viz.: when the rumps, loins, and fore ribs of a fine ox, will fetch 8d. a pound, the thick flank, buttock, and middle rib, will fetch 6d.; the aitch or adz-bone, thin flank, chuck-rib, brisket and leg of mutton piece, 5d.; the clod and sticking and neck, 3d.; and the legs and shins, 2d. a pound Such is the difference in value of the different cuts of an ox in the meat markets in London.

It is well to observe that the greatest attention should be paid to making the brine, or pickle, whether for Beef or Pork. Pure water should be used in its manufacture; for the sediment, from that which is impure, will settle down upon the meat, and give it a bad color, and a slimy feel. Where river or rain water is used (and soft water should always be preferred), it would be exceedingly desirable to filter it through sand; or, at least, to strain it. A great deal of Beef and Pork is utterly unfit for exportation, by the use of unfiltered water in making the brine.

In packing provisions, the tierces, barrels, &c., should be made with great care and neatness. Clean, handsome ash staves are preferred; and of such other hard, close-grained woods as will not stain the meat. Tierces should have four iron hoops or three; one at each bilge, and one at each chime; barrels with an iron hoop at each chime. The fuller hooped the barrel or tierce is, the better.

We noticed recently that the first year after the modification of the British Tariff, up to 31st August 1842, 3,367 barrels only of American beef were imported into Liverpool. The past year, up to 31st August, there were imported into the same place, 9,812 barrels, and 10 789 tierces of beef. If we would only pack our beef neatly by the above directions, the importations in 1846 might double those of 1844, and a great increase likewise will be made in the importation of pork.

IMPORTED POTATOES.

To the great disgrace of this part of our country, potatoes are coming over here in large quantities in most every packet ship from England, and all sold at a handsome profit. They are worth in Liverpool from 25 to 30 cents a bushel; freight, duty, and all expenses of importation, make them cost here from 40 to 45 cents, so that they sell at a fair profit in this market. They are a better quality than our own, and therefore bring a higher price. By turning to page 354 of our last volume, a simple remedy will be found for the rot in potatoes, which, if generally adopted by the farmers, would enable them to raise this indispensable root without loss, and in a healthy state. Indeed, we are of opinion that the application of lime and charcoal alone, on a good soil, are sufficient to effect so desirable a purpose. Winter is the best time to prepare to transport these materials to those places where they will be wanted in the spring. Then let the farmers look to it, and see that they have the means of preventing the rot another year among their potatoes.

DEATH OF SAMUEL STEVENS, ESQ.

Many of our readers will have learned ere this, of the death of this eminent citizen on the 25th of November last. The press, the bar, and the municipal councils of our city, vied with each other in doing justice to his private worth and valuable public services. From us a notice is due to his memory, as he was a lover of agriculture, and ardently engaged in promoting a more scientific knowledge of the art, and the general advancement of its interests. His contributions to this journal on the cultivation of the strawberry and the peach tree, under the signature of S. S., are characterized by great vigor of expression, and acuteness of perception in all their practical details. At the time of his death, he was investigating the cause of the rot in potatoes.

Mr. Stevens died a bachelor at the age of 60. He was devoted to the welfare of others, and especially to the care of his aged mother, who survives him, still active, and in the possession of all her faculties. His father, General Ebenezer Stevens, was one of the memorable band who threw the tea overboard in Boston harbor, at the commencement of the Revolution; he was engaged also in the sanguinary battle of Saratoga, and at the siege and capture of Yorktown. He was considered the ablest artillery officer in the American army.

Mr. Stevens was the first President of the Board of Aldermen under its present organization. He took an active part in the erection of the water-tanks in Twelfth street, the value of which prepared the public mind to sustain him in the great measure of his life—the introduction of the Croton water into this city. Well may his name be blessed and cherished for this great and beneficent act. Let each fountain playing its crystal waters in our public squares, be hereafter a perpetual monument to his memory!

Mr. Stevens was happy in his domestic relations; universally respected; and by his numerous brothers, several of whom hold eminent stations in this city, most tenderly beloved. He died without pain, after a lingering disease, happy in the thought of the change which awaited him, and with a full hope of a blessed immortality.

CORN AND COB MEAL.

We have for a long time been much in favor of Corn and Cob Meal, not only from our own experience of its value as food, but of that of others. It is a great saving in point of economy; and it is generally asserted that horses, mules, and other animals, are not near as subject to colic when fed on this kind of meal as on pure corn. Excellent machines for grinding it very rapidly by horse power, may be had in this city; according to size, from $30 to $40 each, the cost of which, at the present high rate of corn at the south and west (25 to 75 cents per bushel), would be saved on many a farm and plantation in a single month. Those who have not machines for grinding, will do well to soak their corn in hot water, slightly salted, or what would be better, to boil it. If pretty hungry, the animals will then eat the cob as well as the corn. But we are surprised that more attention, at the south and west, is not paid to the raising of oats for horse and mule feed: they are infinitely better than corn. Chemical research and practice both teach us that oats lay on good hard-working flesh, while corn makes fat, or soft flesh at the best, not fit to work on. If you wish to fat a hog or beef, give him corn; but if you want work, supply your animals with plenty of oats, barley, beans, and peas.

SHELTER FOR STOCK.

Liebig asserts that "our clothing is merely an equivalent for a certain amount of food." In other words, if we keep ourselves comfortable and warm, we cannot eat so much, because the amount of heat to be supplied by the food is diminished.

These observations are as applicable to domestic animals as to ourselves, and they teach the farmer the necessity of providing comfortable shelter for his stock. It has been proved by repeated experiments, that animals during the winter season entirely exposed to the weather, do not thrive as well, nor keep in as good condition, as those comfortably housed, although they consume from 25 to 100 per cent. the most food: thus showing the owners of stock, that if they have not sufficient mercy upon their dumb beasts, to provide them shelter in winter, their interests at least should prompt them to do so. We can add little to what we wrote under this head in our last volume, more than to say, that an industrious and humane man will always find materials for cover for his stock, even if they be of the roughest and rudest kind. If we could do no better, we would even drive our animals into a wood for shelter, as trees and brush will at least break off the cold rough winds, if they do no more.

Office Hours.—Owing to his avocations elsewhere, the editor of this paper will more usually be found at his office from 12 o'clock noon till 2 P. M., at which time he will be pleased to see all who may be desirous of favoring him with a call.

EXPERIMENTS WITH MANURES.

Nitrate of Soda, Nitrate of Potash, Sulphate of Soda, Salt and Soot.—We condense from the English Agricultural Journal, a series of experiments with the above manures, made by Mr. Hannam on several kinds of grain the past season and detailed at considerable length.

Oats—per imperial acre, over the same kind of land where nothing was applied, gained with 84 lbs. of nitrate soda, mixed with 168 lbs. of common salt, 5.76 bushels grain, and 304 lbs. straw; with 112 lbs. of nitrate potash, 4.26 bushels grain, and 304 lbs. straw; with 112 lbs. of nitrate potash, 4.26 bushels grain, and 280 lbs. straw; with 236 lbs. of salt, 6.66 bushels grain, and 350 lbs. straw.

Barley gained with 168 lbs. of nitrate soda, 14.12 bushels grain, and 572 lbs. straw; with 112 lbs. nitrate soda, mixed with the same quantity of sulphate soda, 11.55 bushels grain, and 432 lbs. straw; with 84 lbs. of nitrate soda, mixed with 168 lbs salt, 10.42 bushels grain, and 600 lbs. straw; with 114 lbs. of nitrate potash, 11.16 bushels grain, and 714 lbs. straw; with 336 lbs. salt, 11.42 bushels grain, and 44 lbs. straw.

Wheat gained with 140 lbs. of nitrate soda, 5.62 bushels grain, and 424 lbs. straw; with 112 lbs. of nitrate potash, 4.25 bushels grain, and 316 lbs. straw; with 32 bushels of soot, 2.25 bushels grain, and 68 lbs. straw; with 336 lbs. of salt, 1.4 bushels grain, and decreased the straw 96 lbs.; with 140 lbs. of sulphate soda, the grain decreased .83 of a bushel, and increased the straw 28 lbs.

The good or ill success of such experiments, as detailed above, must always depend more or less on the situation of the land, the elements contained in the soil, and something on the season. For example: if the land be within reach of sea-breezes, which for centuries have been supplying it with soda, an application of nitrate of soda would not benefit it; nor would nitrate of potash, a soil already containing a sufficiency of potash. It would be the same with lime, plaster, &c., &c.; so that in making experiments, all these things must be considered. Still, we would not advise the farmer at all times to be at the expense of an analysis of his soil, to see what elements it contained, but would advise him to make a few cheap experiments on a small scale, and if these proved successful, then enlarge them. This would cost him less than a good analysis, and be more certain and satisfactory, as there will be attendant circumstances in all experiments, over which the chemist can have no control, and for which he cannot always account.

DEGENERACY OF ANIMALS BY A CHANGE OF CLIMATE.

The Maine Farmer says, "The principle seems now to be very generally recognized, that most cattle degenerate with a change of climate." We cannot confess to any such general recognition, and must add, that a change of climate may as often be the means of an improvement in cattle, as a degeneracy in them; for these matters depend entirely on what they are, where taken, and how treated in their new home. We think the Devons have not degenerated in New England, when proper attention has been paid to their breeding, and we know that they have increased in size when taken to the rich pastures of the west. Durhams and Herefords would be likely to degenerate in size in the extreme Northern States, especially on the short pastures of the mountains; but they hold their own in the Middle and Western States. The Norman horse has lost in size in Canada; yet it is believed that he has gained in constitution, speed and endurance. The blood horse brought from England has not deteriorated here, and the Arabian has gained in size. Sheep also hold their own remarkably well in America, especially the Merinos of Spain, and the Southdowns of England. Does the editor expect his fine Cotswold buck, just received from Mr. Sotham, to degenerate? We should be apprehensive in the colder climate of Maine that he might some in size; not so, however, in Ohio, Kentucky, and any other states in the same latitude, with good pastures.

"Almost every county" in England is very far, at present, from having its "peculiar stock." On the contrary, we should think that full one-third of them have as great a mixture as can be found in any county in the United States. The imported cattle, such as the Durhams, Herefords, and Devons, are rapidly and widely spreading in Great Britain and Ireland; and this they are doing without degeneracy, wherever good pasture is to be obtained, and proper attention is paid to them. They would not answer at all on the bleak mountains of Wales and Scotland, nor in the bogs of Ireland; for nothing can live there, save the hardy dwarf natives. But these *improve*, and very rapidly too, in a change of climate, when brought down to the rich lowland pastures; and it is quite a system with the graziers in Great Britain to thus fit these hardy animals for the London market.

CURE FOR FISTULA IN HORSES.

Mr. Harmon, in the Genesee Farmer, attests to the efficacy of the following singular method of curing the fistula:

"Procure a large warty toad, and having a thick glove or mitten on the hand, take up the toad and hold his back on the fistula for one or two minutes; take it off a short time, then put it on again, and rub its back slightly over the affected part, and continue to rub it thus for about an hour, by which time the toad will be dead, and should be buried. The horse will be rather uneasy at first, but after a few minutes he will stand quietly. Care should be taken not to hold your head too near or over the place of application, as the fumes are somewhat sickening. A milky fluid, said to be poisonous, exudes from the warts on the back of the toad, which is supposed to give efficacy to the remedy.

"The sore will discharge for three or four weeks after the operation, when the pus will come out and the place speedily heal. Very bad fistulas, of long standing, may require a second application, but in all ordinary cases one will prove sufficient."

A friend at our elbow says, put a seton in the fistula, at the lower part of it. This will discharge the *pus*. Then inject soap suds, made from fine soap (Castile is the best), frequently for one day. Next inject a weak solution of oil of vitriol two, or perhaps three times a day, for one or two days. After this, wash clean with soap suds. In a short while the fistula will be well. Poll-evil may be cured in the same way.

GARDEN vs. FIELD BEANS.

We can well remember when the field bean was universally used as a crop for harvesting dry, the garden bean being considered unsuitable for this purpose. The practice of late years has made serious inroads on this opinion; and where this has been long tried, it is a common observation, even with uneducated consumers, that garden beans require much less pork to give equal body and flavor to them than is necessary with the field bean.

Science comes in to verify and explain this opinion; as it has been found on analysis, that the kidney contains 23.6 per cent. of legumin, albumen, &c., while the field bean contains but 11.7 per cent., a difference in favor of the former of more than 100 per cent., which, however, is lessened by greater proportions of some of the nutritious principles of the latter. The legumin, albumen, &c., is nearly analogous to the nutritious principles contained in meat, and hence the correct estimate placed upon the superior value of the kidney-bean for edible purposes. It may be added that, on *strong soils*, the kidney-bean is equally wholesome, and a much more prolific bearer than the field bean; which is all that is necessary to be known, to ensure for it a substitution in all cases for the latter, *by all such as read agricultural papers*, or who take the least interest in the study of the why and wherefore of the farmer's profession.

PEDIGREES OF MR. JARVIS' SHEEP.

Cortland Village, Dec. 6, 1844.

In my article in relation to the pedigrees of my Merino sheep, in your December No., allusion is made to the pedigrees of Hon. William Jarvis' sheep, from which mine are partially descended. A writer in the Agriculturist having ventured the conjecture that all of Mr. Jarvis' Merinos have received a Saxon cross, I forwarded to the latter the following inquiry: —"Have you a flock of Merinos which you *know* to be the pure blooded descendants of your early importations?" I subjoin his answer.

Henry S. Randall.

Dear Sir,—In May, 1826, I purchased 52 or 53 at the sale in Brighton, Mass., of the large importation of Saxony sheep by Messrs. Searle of Boston; and the following autumn I selected and separated one hundred Merino ewes from my flock, and the rest I crossed with Saxony bucks. Those hundred Merinos and their descendants I have always been careful to keep by themselves, both summer and winter, and have been very particular in the choice of pure blood Merino bucks to put to them for breeding. The pure blood Merinos I kept marked with my old Merino ear mark, a half penny (or notch) under each ear: the progeny of those crossed between Merino and Saxony, with two half pennies under the right ear; and the full blooded Saxony with two half pennies under each ear.

In 1831 or 1832, finding that the Saxony crosses were reduced in weight of fleece from four pounds, which was about the average of my full blood Merino flock, to two pounds ten ounces, or two pounds twelve ounces, per fleece, upon an average, I took out all the remaining old Merino ewes, and put them with the descendants of the one hundred formerly reserved pure bloods. I have since bred all the Merino ewes with Merino bucks; and the cross blood ewes with cross blood bucks, selecting those with the heaviest fleeces; and full blooded Saxony ewes with full blooded Saxony bucks. I have been very particular to keep the three kinds of ewes apart, winter and summer. This I have been easily able to do, as I have ten sheep yards, each connected with a shed, and well separated with a good fence, and water in each;—and fifteen pastures, all well walled or fenced. I particularly employ one man about my sheep, and constantly give the necessary directions regarding them, which I personally see are faithfully executed. Usually in March or April, I myself select from the preceding spring lambs the buck lambs I intend for stock bucks. The flocks are separately washed, and separately sheared; and during the shearing process the lambs are ear-marked and tar-marked; and the old sheep are tar-marked as fast as sheared. I have been thus minute, to satisfy you of the confidence and safety with which I can speak of the blood of my sheep.

My flock consists of about a thousand sheep of all kinds, of which there are one hundred and sixty Merinos, the pure blooded descendants of those I purchased in Spain in 1809 and '10, and exported from Lisbon; about one hundred full blood Saxons; and the remainder are crossed between Saxony and Merino. The fleeces of the latter, from the attention I have paid to the selection of bucks (as before mentioned), are much heavier than in 1832. The average of the three kinds, taken together, is now 3lbs. 2oz., to 3lbs. 4oz., per head.

William Jarvis

Weathersfield, Nov. 1, 1844.

AGRICULTURAL SHOW IN MISSISSIPPI.

On Friday, the 25th ult., our fall show came off. The exhibition was a good and interesting one—the attendance, I regret to say, was very poor—the political excitement being so great that nothing else was thought of. So much was this the case, that on learning that a Whig pole was to be raised in Natchez, on the following day, which time being appointed for the trial of implements, the President postponed the trial until that day week.

Show of Stock, Vegetables, &c.—The show of stock was very fair; in hogs particularly good. In-doors, the ladies carried the palm—sweetmeats, jellies, cordials, &c., of the highest excellence; most beautiful specimens of needlework, knitting, netting, &c., warm, *comfortable*, home-made *comforts* for the negroes; quilts, bundles of home-made socks, &c., &c., gave ample proof that in taste, skill, and industry, the ladies of Adams, and the adjoining counties, are unsurpassable. The vegetables and flowers were excellent; fine specimens of wines; samples of leather tanned on plantation, good merchantable leather; with many other things which I cannot now specify.

Trial of Plows.—On the following Saturday we had but a slim attendance, the same cause still operating to prevent an interest being felt in any other topic. A few experienced planters, zealous for improvement, were there. The plows attracted the most attention; and of those, Ruggles, Nourse, and Mason's cast all the others in the shade. Every one present acknowledged their superiority over any plow they had used, and several expressed, in my hearing, a determination to procure a supply. After trying all the sizes which you sent me, the opinion of the committee was, that the slight apparent difference of draught in favor of the smallest size, does not, by any means, compensate for the very great difference in the amount of work done by the *Eagle* plow. The clevis on the Eagle plow sent by you, is a decided improvement on that of the one I purchased in Natchez, which is very defective.

We have another trial of implements, to take place probably in April or last of March, when we feel confident of seeing a still greater number here; and when those very excellent plows shall have a farther trial. I should like to see a large sized subsoil plow here at that time—the one you sent does good work for the draught required, two small horses taking it along, at a depth of six inches, with great ease. We are very willing to put *four* stout mules to a good plow. *Subsoiling* is attracting considerable attention; our best planters will, ere long, consider it an indispensable part of good farming.

Cost of Corn Sheller.—What is the cost of Smith's power corn sheller and separater, capable of getting out say even 100 bushels of ears per hour. (*a*) I wish he would send one here.

Degeneracy of Wool.—Your correspondent, R. L. Allen, in his excellent article on wool growing, *must* take a fling at the unfortunate "climate of the south." (*b*) Will be inform us how long a time elapses before the *wool* of the negro straightens out in the cold climate of the north? And how long we, of the "European races," may calculate upon being able to use a comb and brush? The extra degree of heat the sheep has to undergo here, is a mere nothing to the difference between the degrees of heat and cold he has to encounter with you. The Tennessee Agriculturist is involving itself in a fine web of absurdity on this same subject. I will disentangle all of you, one of these days.

The results of all my experiments thus far, go to prove that you are right in warning your readers to be on their guard with chemical solutions for seeds. Until I try farther, I would not wish to enter into any particulars.

THOMAS AFFLECK.

Ingleside, Adams Co., Miss., Nov. 26, 1844.

(*a*) It is $50, delivered in this city, or $40 at the manufacturers.

(*b*) Are you not mistaken? He speaks of wool as deteriorating in the "equatorial regions" only, as we understand him; and we presume that he would make those portions of the equator sufficiently elevated to ensure a temperate climate and good pasturage, an exception to his remarks. We do not think he meant to include any part of the United States in his observations. However, he will probably explain for himself when this meets his eye. We shall be glad to see Mr. Affleck's "disentanglement" of all of us; but if he means to include the editor of this paper as entertaining the idea of wool degenerating in any part of the southern United States, he will find, by looking over our writings, that we have ever expressed the opinion that it grows *softer* and *finer* there, on the same kinds of sheep, than here at the north, provided they get anything like fair attention. To keep sheep on the lowlands of the south in winter, and drive them in the spring to the mountains not over 100 to 300 miles distant, will be quite common we hope a quarter of a century hence.

CUTTING TIMBER AND SETTING POSTS.

CAN any one inform me what is the best season for cutting timber and the best manner of setting posts.(*a*) Nine-tenths of all the published directions for cutting timber, claim that the best season for ensuring durability, is to cut in February; while the other tenth claim, that by cutting in June or July and immediately peeling off the bark, timber will not *powder-post*, and will last three or four times as long as that cut in winter. Is not the proper time somewhat later, and truly indicated by the perfection of the leaf, say from August to first of November? Analogy would lead us to suppose this, and some experiments go strongly to confirm it. Experiments in summer cutting have been most conclusive in favor of its superiority over winter cutting. Can it be that truth lies with the *few*, and are the *many* mistaken? Such has not unfrequently been the case. Can any of the numerous readers of the Agriculturist give us facts on the subject? A series of experiments in cutting every week in the year, for a series of years, the temperature and peculiarity of season being noted at each time—with all descriptions of timber—young and matured—peeled and unpeeled—housed and unhoused—and applied to all the different purposes for which timber is used, would result in vast advantages to the community. (*b*)

I wish to re-set a number of fence posts the ensuing spring. What durability may I look for from white-oak, grown in the original forests of New York, which have been in use eight or nine years? Is there any difference in setting the top or bottom end in the ground? The soil in which they are to be set is a strong clay; can any advantage be derived from placing a quantity of leached ashes around them at the surface, and how many are required for each post of six or seven inches square? (*c*)

QUERICUS.

(*a*) The best method of setting posts which we have seen practised, is on the farm of Mr. Gibbons of New Jersey. A hole is dug two and a half feet deep, and of a circumference of four inches wider than the circle of the post. Small cobble stones are laid four inches deep on the bottom of this for the post to rest on; the hole is then filled up all round the post with the same kind of stone. Thus planted, it does not come in contact with the ground at all, and will stand sound for many years.

(*b*) It is pretty certain that timber must throw out its sap soon after being cut, otherwise it undergoes fermentation, which causes it rapidly to decay. Now if it be cut and peeled during warm weather, it has a much better opportunity to get rid of its sap than when cut in winter and left to dry as it best may with the bark on. If these observations be correct, any time sap is running, would be the best to cut timber and as soon as peeled, it should be hauled out of the woods and exposed to the sun to dry. All experiments which we have ever heard of, go to show that timber cut in the spring and summer lasts longer than that cut in the winter.

(*c*) Setting posts with the little end down it is said will make them last much longer than with the butt end down; but having no experience on the subject, we cannot answer whether this is really so. Of the benefit of leached ashes we know nothing. Charring the post before setting adds to its duration.

Agriculture in Scotland.—No. 3.

Ayrshire Cattle.—During the last two weeks I have been in a part of Scotland famed for its spirit of agricultural improvement, and have been there under circumstances most favorable for the acquirement of information. I allude to the counties of Ayr and Renfrew, the former of which is especially celebrated. Among the many objects of interest, were the Ayrshire cattle. My observation of these was of necessity hasty, and my information picked up in fragments from different individuals; yet there may be something new and calculated to be of benefit where this stock is not generally known.

I found the Ayrshires generally the only breed in that part of Scotland; of course there are mixtures and crosses, but they very greatly prevail. The largest number of cows upon any of the farms which I saw, were at Mr. John Tennant's, 6 miles from Ayr. He had about 90; some 30 of them, however, were fattening. Mr. Alexander, of Southbarr, has a fine dairy of about 40, at Wellwood, near Muirbirk. Mr. Fleming's, of Barrochan, is also worthy of notice. I was particularly pleased with that of Mr. Burnett, of Gadgirth, where every particular as to each churning is entered in a book kept for the purpose, so that a glance tells the quantity of cream or milk used, the weight of butter obtained, the time occupied in churning, and the temperature.

Weight of the Ayrshires.—On this point I could only obtain an approximation to a general rule. The average weight of Mr. Tennant's cows, as he informed me, is from 36 to 43 stone (about 500 to 600 lbs.), dead weight. I found that the animals raised expressly for fattening, are almost invariably a *cross* with the Short-Horns. Every large farm that I visited, had a full blood Short-Horn bull. *The improvement in shape and size from this cross is very great. They also mature much earlier.* Mr. Tennant turns his off at two years old past, and says that they then weigh from 50 to 60 stone, or from 700 to 850 lbs. Two very important points are thus attained—increase of size with a gain of from 6 to 12 months in the time of maturing for market. On some farms the Angus, or Polled breed seemed to be favorites for fattening; and on others, the small West Highlanders are bought in the autumn, and sold in the succeeding autumn, after a year's keeping on the rich lowland pastures.

Milking qualities.—The Ayrshires, as you are probably aware, stand very high in this respect. Though they are small in size, their milk is abundant in quantity and remarkable for richness. Mr. Tennant stated that in the height of the season, his cows yielded about 10 Scotch pints, or 30 English, per day, and that they averaged not far from 170 lbs. of butter per annum. Mr. Fleming, however, told me that on the best lowland pasture, a good cow yields 2,000 Scotch pints, 8 of which are considered equal to a pound of butter. This would be 240 lbs. per annum; on poorer or high land he would not expect more than 1,500 pints, or 180 lbs. butter, which would nearly agree with Mr. Tennant's statement. The Scotch pint is 3 English pints—350 to 400 lbs. of whole milk cheese is mentioned as a fair average. I inquired particularly as to the milking properties of the cross with the Short-Horns. Mr. Tennant, Mr. Burnett, and many others said that the milking qualities were deteriorated; that now and then a good milker might be found, but it was an exception. Mr. Burnett said that milk formed no part of their calculation in making the cross; it was simply for the purpose of improvement in size and aptness to fatten. On the other hand, I learned from Mr. Fleming, of Barrochan, and his overseer, both excellent authorities, that the cross with the Short-Horn *made capital milkers.* These conflicting opinions throw a shade of doubt upon the subject, which I am as yet unable to dispel.(*a*) If the milking qualities of the Ayrshire can be united with the form and fattening qualities of the Short-Horn, it becomes a matter of much importance. I should think it at least worthy of a fair and impartial trial. In Mr. Fleming's dairy were two or three Alderneys; these, the overseer informed me, were to give additional richness to the product of the whole.

Sheep.—I saw but one flock of Southdown sheep, which was upon the farm of Mr. Campbell, of Craigie. He said, and all whom I questioned seemed to agree with him, that in many points they are superior to the Cheviots, yet their introduction seems to be by no means extensive. They are generally considered as hardy as the Cheviots, and the mutton is unequalled. Upon the farm of Mr. Alexander, of Southbarr, I saw a very fine cross between a Southdown buck and Cheviot ewes. He is much pleased with it, and will have a large number of lambs next season. Small flocks of the Leicesters are kept upon many farms, but the Black-faced Highlanders are most abundant; they are bought for fatting like the West Highland cattle.

The Clydesdale Horse I found the universal favorite for farm purposes. Some noble specimens were exhibited at Glasgow, at the show of the Highland Society. Some of the farmers, however, think that they are beginning to degenerate; that they are, as they say, becoming too *leggy.* Mr. Tennant last year imported a celebrated Flemish stallion, with a view of correcting this defect. This is certainly a noble animal, and combines, in a degree that I think can hardly be surpassed, compactness with great muscular power. It is a prevalent idea that the original Clydesdale horse sprang from a Flemish stallion, and this, therefore, is going back to the parent stock. For our farming operations, as at present conducted, lighter and more active horses, on all save the stiffest soils, would be equally efficient and more economical; but when we come to use the clod-crusher, the grubber, the subsoil plough, &c., stirring the soil as it is done in some parts of this country, to the depth of 22 inches, we too shall want animals of great size and power, unless we can contrive implements to effect the same end without requiring such an expenditure of strength. JOHN P. NORTON.

Edinburgh, Oct. 25th, 1844.

(*a*) Our correspondent, though a young gentleman of fine attainments, has not yet had much opportunity of studying the science of breeding; we will, therefore, reconcile what seem to him "conflicting opinions." There are different tribes of Short-Horns or Durhams; some excel as milkers, others do not. Mr. Burnett states "that milk formed no part of their calculation in crossing with the Short-Horn;" he, undoubtedly, chose a bull without reference to the milking qualities of its tribe, and probably crossed him with those Ayrshire cows which he had taken from his herd, principally on account of not excelling as milkers. Now, no reference to milking qualities being cared for, either in the dam or the sire, of course their produce could not be expected generally to prove good milkers, though it seems one would occasionally leak out. Mr. Fleming, on the contrary, either by accident or design, must have obtained a Short-Horn bull from a milking family, which he bred to his deep milking Ayrshire cows. Of course the progeny of this cross would be good milkers, as a general rule. It seems in both events, that *earlier maturity* was obtained, a matter of very great consideration to the breeder. If the farmer can get an animal which will be fully matured and fit for market at two and a half or three years old, how much more profitable would that be than to wait from *five* to *seven* years, as he is now obliged to do with the native cattle! But this subject was placed in such clear, forcible light, by a correspondent in our last volume, page 107, under the head of "English Method of Fattening Cattle," that it renders it unnecessary for us to dwell upon it any farther at this time.

CULTURE OF THE PEACH.

In reading a communication a few months since, of N. Longworth to the Cincinnati Horticultural Society, I was surprised to find that this eminent cultivator had imbibed several material errors in relation to the peach and its cultivation. He remarks, "that the pit of a seedling peach will produce its kind, is well known," &c.

There certainly can be no distinction intended here between a seedling or natural, and an inoculated peach tree. All our varieties of peaches are seedlings; there can be no other way of originating new varieties of any fruit whatever. Budded or grafted trees bear fruit precisely the same as that of the tree from which the bud or graft was taken; suckers from the root will produce fruit similar to that of the stock from whose root they spring. Consequently, all new varieties must spring from seed, and the above assertion cannot be correct, that seedlings will produce their kind, because, if such were the case, no new varieties could arise.

It is, as Professor Lindley truly remarks, an axiom in vegetable physiology, that seeds reproduce the *species* only, while buds will multiply the *variety*. That the pit of the Oldmixon peach will reproduce a peach is certain; but it is equally uncertain that it will produce a tree, whose fruit can claim the most distant affinity to the Oldmixon variety. Although there is always this uncertainty in perpetuating a variety, and it is the general nature of a seed to perpetuate the species only to which it belongs; yet there is always a visible tendency in it to produce a seedling more like its parent, than any other variety of the species. For example, suppose the pit was sown of an Oldmixon peach, if this peach stood isolated where the stigma of the flower that produced the pit could not have been impregnated with the pollen of other varieties, it would be more likely to produce a fruit, fine, large, and sweet, like its parent, than one that was small and worthless. Yet there would be no certainty of obtaining a fruit resembling the Oldmixon, although it might be equal, if not superior, to it in size and flavor.

The remarks of N. Longworth quoted above, have, therefore, a tendency to mislead the tyro in horticulture, although such a result is undoubtedly very far from his wish or intention. I speak only of the present result of planting pits of seedling fruit. I have no doubt that by judicious experiments upon several generations of trees, one might be obtained whose fruit would produce a tree that would bear fruit very nearly, if not precisely similar to its parent. It is on the same principle that gardeners have obtained the seed of many fine varieties of vegetables, which, although *varieties*, will produce the same. Let a person plant the pit of the Oldmixon peach, and inoculate the tree that springs from it with the Oldmixon bud, let him plant the pit borne by this inoculation, and bud the tree again with the Oldmixon in a similar manner, and repeat this process for several generations, the result, I think, would be, that a peach would be obtained whose pit would uniformly produce the Oldmixon variety.

The cause of this result, I think, is founded upon true physiological principles. If the fruit of a tree produced from the pit of a budded peach partakes of the nature of the fruit, both of the stock and of the bud—and I have very little doubt that it does—then this "breeding in and in" must gradually assimilate the natures of the bud and of the stock, until the fruit of the one is very nearly, if not quite, the same as that of the other. I hope some amateur who has leisure and taste in these things, will try the experiment, and inform the horticultural public of the result.

S. B. P.

Commercial Garden and Nursery, Flushing, L. I.

BLACK-SEA WHEAT.

When recently in New York, I saw at the rooms of the American Institute a great variety of samples of wheat from Mr. Harmon and others. We have in this vicinity a variety of wheat called the Black-sea, which has done remarkably well here since it has got into general use. It has thus far resisted the attack of the fly and rust, the two great hindrances of wheat-growing in this section. Previous to the last year this country has had to depend upon the west for its flour; now there is a surplus. The best kind of wheat for seed can be had here for $1 per bushel. If a good chance offers I will send you a sample of the Black-sea Wheat, and one for the rooms of the Institute, if you will take the trouble to hand it in there.

Samuel Everts.

Cornwall, Vt., Dec. 9th, 1844.

We shall be pleased to receive the samples of wheat spoken of.

COONS, GREAT RAT KILLERS.

I could recommend nothing better in the place of Mr. Affleck's cats, than a good lot of pet coons. They are much preferable to cats, to kill, eat, and drive away rats. They can stand any climate without being subject to convulsions. Coons are the best remedy to keep rats away of anything I have yet heard of. I will insure Mr. Affleck after he has a coon or two on his place a few days, there will not be a rat about the *diggins*. I can say this by experience, for we were nearly devoured by rats until we got coons. I can now say there is not a rat on the place. If Mr. A. should want any of the tribe, I could spare a pair, as I have a dozen on hand.

R. H. Hendrickson.

Middletown, Ohio, 18*th Nov.*, 1844.

Horticulture in France.

A voyage to Europe, and a few months passed there very pleasantly, forms an epoch in any man's life, sufficiently important to be remembered, if only from the fact of crossing and re-crossing the Atlantic. How much more agreeable then will be the reminiscences, if, in addition to this, our tour has been undertaken for the double purpose of gaining information, and ascertaining from personal observation what our neighbors are doing in that branch of science most interesting to ourselves, and very generally so to our fellow men! With us, the pleasures of gardening, and of everything else connected therewith, are regarded as first principles, influencing our thoughts, and giving a direction to all our acts. Three years ago, we scarcely knew the name of a dozen plants either ornamental or useful, and had not in our possession a single specimen of vegetable life. A beautiful rose-bush caught our eye one day while passing through Fulton market, admiration induced us to purchase it, and from this simple circumstance has originated the large and magnificent collection of exotics now under our care, with the huge conservatory and other accompanying plant-houses around the gardens at Carolina Hall. After visiting several of the most important public and private establishments in and near New York and Philadelphia, and obtaining from the former everything worthy of notice, we found there was still wanting a multitude of rare and elegant plants, only to be had by making the importation from foreign countries, or, by a personal visit to kill two birds with one stone, by seeing for ourselves, and then selecting whatever merited attention for its beauty and scarcity combined. We were not long in deciding on the latter course, and sailed for Liverpool in April last, with hopes and expectations which have been more than fulfilled.

With a partial promise made at the moment of starting, that we would communicate our views on horticultural subjects, formed from our own observation on the condition of things abroad, we have at no previous time been able to comply. Constant change of place and scene, with the necessarily attendant excitement thereby occasioned, has operated as a preventive; but now that we have a little more leisure, something may be said as to the state of horticulture in England, France and Belgium, and the contrast made apparent, between *our* operations and those of our friends across the water.

An American scarcely sets his foot in France, before he is struck with the different appearance of almost everything he has been accustomed to see at home. The novelty of his position, particularly if it be the first time that he has gone abroad, makes him feel somewhat singular; and except when he is asleep, his faculties are roused to their utmost limit of comprehensiveness by the panorama around him, of the busy scenes of human life. The language, the manners, the dress, and the very looks of his fellow men, all remind him strongly that he is a stranger in a strange land. If he is going to Paris, (and who goes to France without going there?) he is off at once, satisfied that in and about that magnificent city, he can avail himself of sight-seeing to his heart's content. For our own part, though we saw and wondered as much as any one, yet our chief interest was directed to the numerous horticultural establishments, their size, arrangement, extent of collection, and general keeping.

One of the first visited was that of the Messieurs Cels Frères, pépiniéristes à Montrouge, chaussée du Maine, 77. These gentlemen have a very extensive nursery, tolerably well laid out, and stocked with a good assortment of hardy plants. They cultivate the rose largely, and have raised some very beautiful varieties of this lovely flower. Their chief attention is, however, bestowed upon their collection of *stove* and *greenhouse* exotics, than which there is not a better that we know of in the kingdom. For the growth of these, they have numerous houses, each one filled with its appropriate inhabitants, all looking remarkably healthy, and very neatly arranged. It is to the brothers Cels, that the Horticultural Society of Paris are chiefly indebted for a large portion of the display made at their exhibitions, it being not at all an uncommon occurrence for them to furnish from 600 to 700 specimens of very rare and splendid plants. It is their pride to be among the most distinguished horticulturists of the country; nor have they spared any expense in enriching their collection by constant additions of everything choice and remarkable, either for beauty or singularity. No one can enter their houses without being immediately struck with the large number of palms, rhododendrons, azaleas, ericas, orchidaceæ, coniferæ, and cacti. Of these last, they probably have the richest collection to be found in France, and many of their specimens are very rare and costly. Of these we noticed Echinocactus electracanthus, acuatus, macrodiscus, cornigerus, piliferus, and aulacogonus; Echinopsis multiplex and zuccarini, and several new species of melocactus from Brazil. It is here we saw the beautiful Mammillaria eliphantideus, rarely seen, and well worthy a place in every select collection of cacti. Among the immense number of greenhouse and stove plants, we noticed several of great beauty and rarity; these were Azalea crassifolia, Boronia anemonœfolia, Chowzema oppositifolium, Franciscea hydrangæformis, a new yellow Rondeletia, Bilberghia zonata, with marbled leaves, the Ilex excelsa, singular foliage, Dacridium elatum and cupressinum, and the Phyllocladus trachymenoides. Their specimens of Araucaria imbricata are magnificent, also Altingia excelsa, and Cedrus deodara, all of them being over 12 feet in height. Of the remarkable orchideæ tribe, they possess a fine assortment. To us these singular plants always afford much gratification, not alone because they are so, but from their splendid flowers, many of which are exceedingly fragrant. Of those in bloom we observed the curious Bressia cawanii, Phaius bicolor, Cyrtochilum maculatum, Oncidium carthaginense and ampliatum, Trichopilia tortilis, and Zygopetalon maxillare, of which last *we have a specimen now in bloom*, besides many others not yet in flower, being probably the most extensive collection to be found in the United States. We mention this because it is our wish to have our friends see them, assured that when they shall become better acquainted with their character, many will be induced to obtain and grow a few plants.

The nursery of the brothers Cels is among the largest in the vicinity of the capital, and certainly one of the best. In some respects they have a rival in Monsieur Paillet of the rue d'Austerlitz, whose collection is very good, kept in excellent order, and embraces some very fine things. This gentleman has a most excellent assortment of *roses grown in pots*, a mode that has of late called forth much attention, and to be recommended for adoption to a certain extent in all horticultural establishments. The principal *rose* growers about Paris are M. M. Laffay, à Bellevue, mont des Capucins; Lévéque Réné, boulevard d'Hopital 46; Gauthier, quai d'Orsay, avenue de Suffren; Margottin, rue des Trois Ormes, No. 5, boulevard de la Gare; Roblin, rue Notre-Dame des Champs, 47, and Verdier.

The Roses most in demand during the summer of 1844, and which will be scarce for some time to come, are—La Reine, Iolande d'Arragon, Comte d'Eau, Pauline Levaniem, Thiabault, and Dr. Marjolin, all *Hybrid Perpetuals*. *Noisette*, Cloth of Gold. *Bourbons*—Comte de Rambuteau, Dumont du Coursit, Imperatrice Josephine, Madame Souchét, Princesse Clementine, Souchét, and *Souvenir de la Malmaison*, which last with *La Reine*, are two of the most elegant Roses ever grown. W. W. V.

Horticultural Gardens,
Flushing, L. I. Dec. 15, 1844.

P. S. Persons who are desirous of procuring any or all of the above splendid roses, can be furnished with fine healthy young plants in May or June, at $2 and $3 each. Orders will be attended to if addressed (post paid) to *Mr. M. I. Howard, Horticultural Gardens, Flushing, L. I.*, stating where and how they shall be sent. From unknown correspondents, a remittance or satisfactory reference is required.

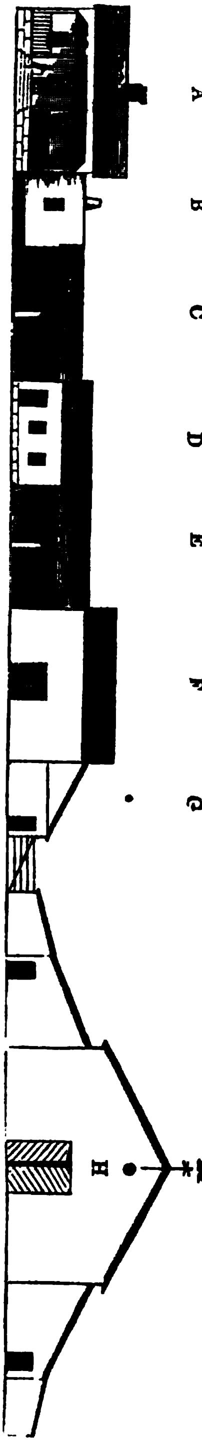
The proprietor will at all times be pleased to receive the visits of his friends, and others who are interested in horticultural affairs.

FARM BUILDINGS.

According to my promise, I send you a plan and description of the farm buildings I have been erecting on my place, together with the barn, and its sheds recently completed. I do not say that these buildings are *perfect* in this plan, but for the accommodation of the farm on which they are located they are as convenient as I could wish. The barn and its appendages have been in use about eight years; the other buildings two years, so that I have had a pretty good opportunity of testing them.

The house is plain and cheap, yet withal presenting a pretty and rural appearance; and when its fruit and ornamental trees and shrubbery are grown, it will wear an aspect of repose, and have a home-like appearance—the great requisites of a farm dwelling. For a tenant house on a large estate, or a moderate farmer, it is equal to all useful purposes; and although the plan might be changed as fancy may suggest, more conveniences than this combines will hardly be found in the same compass.

Black Rock, Dec. 1844. L. F. Allen.



Front Elevation of Farm Buildings.—Fig. 2

Explanation of Figure 2.

A, dwelling-house, of which there will be a complete description, together with explanatory cuts in the February number.

B, wash-room.

C, wood-house.

D, work-shop.

E, wagon, cart, and sleigh-house.

F, horse-barn.

G, stables for bull, oxen, or other animals.

H, barn with stables, threshing-floor, hay and grain lofts, &c., &c.

—

Explanation of Figure 3.

A, dwelling-house 34 feet front by 38 rear; front part 34 by 22; one and a half stories high. Leanto, 16 feet wide, one story high.

1, piazza, from which the door opens into an entry in the centre of the house 8 by 4.

2, sitting or eating-room 18 by 15.

3, parlor 22 by 15.

4, bed-room 12 by 9.

5, buttery and kitchen-closet 12 by 7.

6, kitchen 22 by 16, with fire-place, oven, sink, pump from cistern below, &c.; in the rooms 2 and 3, are fire places, and beyond them are 3 closets which open respectively into 2, 3, and 6, for their separate accommodation; at the right of these closets is the chamber stair-way at one end, and the cellar stair-way at the other end.

B, at 10, wash-room 22 by 16 feet, with boiler. The dot in front of this is a well.

C, at 11, woodhouse 42 by 14 ft, the roof on a level with wash-room with the same pitch as the kitchen

12, privy in the rear.

D, at 13, workshop 22 by 14 feet, one and a half stories high; the roof being raised above the wood-house.

E, at *a*, wagon, cart and sleigh-house 36 by 22 feet; one and a half stories high, with poultry-house over head. This, like the wash-room, wood-house, and workshop, has a shed roof declining to the rear.

F, at *b*, horse barn 32 by 22 feet, 2 stories high, 14 feet posts; the roofs have a quarter pitch each way, with double stalls, a flight of stairs and small granary beneath, with harness hooks, &c., &c.

G, at *c*, stables for the stock bulls, 2 yoke of oxen or other animals, a leanto on end of horse barn with a shed roof a quarter pitch.

H, barn and yards.

d, barn yard 114 by 50 feet. The dots are crotches which support the roof of a shed made of poles 16 feet long, by way of rafters, on which are laid rough boards, and the whole covered with coarse grass or straw. See Vol. II., p. 245, under head of "Cattle Shelters."

e, barn 100 by 50 feet, 18 feet posts; the two sides *i*, *i*, are leantos with 7 feet posts.

f, threshing-floor 32 by 25 feet.

g, main floor, 14 feet wide running the entire length of the barn.

h, *h*, bays for hay, grain, &c., &c.

i, *i*, stables with double stalls for cattle 7 feet wide each.

j, *j*, passage for foddering cattle, 4 feet wide, running parallel with which are mangers 3 feet wide.

k, *k*, extra stables, for calves, new milch cows, hospital, &c.

l, rear yard, 132 by 40 feet, opening on lane which leads into the farm.

m, south yard for cows, 116 by 42 feet, with gate at *n*.

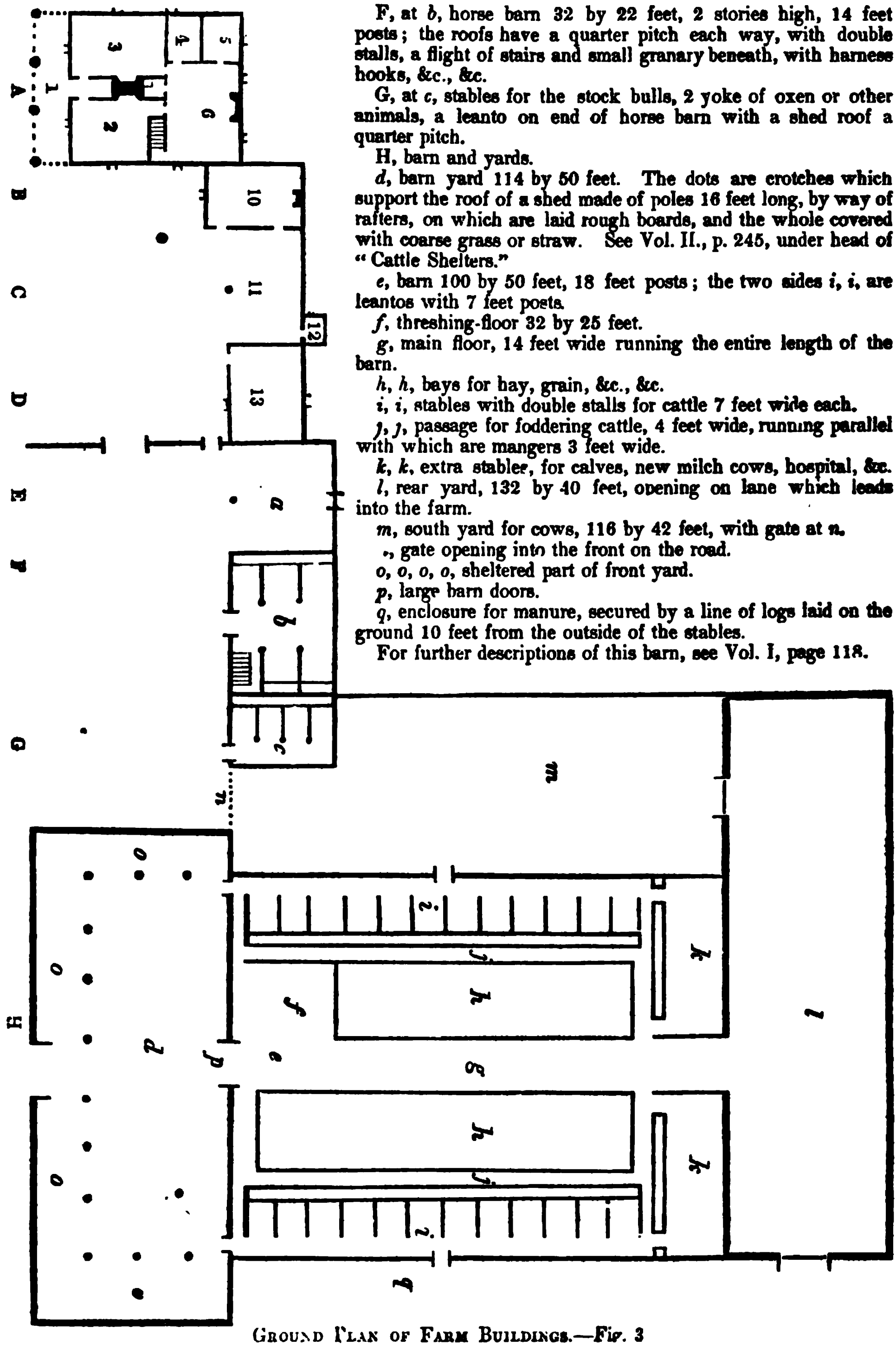
n, gate opening into the front on the road.

o, *o*, *o*, *o*, sheltered part of front yard.

p, large barn doors.

q, enclosure for manure, secured by a line of logs laid on the ground 10 feet from the outside of the stables.

For further descriptions of this barn, see Vol. I, page 118.



GROUND PLAN OF FARM BUILDINGS.—*Fig*. 3

The following sketches relative to the origin, nature, management and other circumstances connected with Merino sheep, are from the pen of one who was the son of a farmer, and educated as such. As he has travelled extensively in Spain and other parts of Europe, and writes from personal observation, and an intercourse with Spanish shepherds and flock masters, we think his articles will be found highly valuable to all engaged in the business of sheep husbandry, and bespeak for them an attentive perusal.

SHEEP HUSBANDRY IN SPAIN.—No. 1.

The Sheep, from remote antiquity, has continued to contribute greatly to the wants and comforts of man; and, at the present time, is more extensively employed in the economy of the human race than any other animal. Although attempts have been made to trace the varieties constituting our domestic breeds to their original stock, it never has satisfactorily been done, and perhaps it is impossible ever to arrive at an accurate conclusion in regard to them. The Musmon of Pliny (*Ovis musmon*) at present found wild in the desert parts of the mountains in the south of Spain, Ivica, Corsica, Sardinia, and some other islands in the Mediterranean, as well as in European Turkey; the Asiatic Argali (*Ovis ammon*) which inhabits the more elevated tracts of Asia, Caucasus, and the plains of Siberia; and the Bearded Argali (*Ovis tragelaphus*) of the mountains of Northern Africa, claim to assist us in producing our present breeds, and have generally been considered as their most probable origin.

In Spain there are, at present, two domestic breeds of sheep, which differ widely from one another, both in their habits and in the properties of their wool. One kind has, for a long period, existed in the warmer parts of that country, and is known by their long, coarse, hairy wool; and the other, which migrates every spring from the plains and valleys of Andalusia, Estremadura, Murcia, Valencia, and Catalonia, to the cool mountains of Old Castile and Arragon, where they pass the summer, and return again in autumn to feed, during winter, on the warm plains below. The latter, which includes the pure Merino (*Ovis aries hispanica*), are distinguished from the common sheep, by a loose skin hanging from their necks, and in having wool on their foreheads and cheeks, and frequently down their legs nearly to their hoofs. The horns of the males are very large and ponderous, and are usually rolled laterally, one part over another. Their wool is long, fine, and soft, and is twisted into glossy, spiral ringlets; it naturally contains a large proportion of oil, to which dust and other impurities adhere, and give to the animals a dingy and unclean appearance, that conveys to the casual observer an idea of inferiority; but, on parting it, all doubts are immediately removed, when its unsullied purity and fineness are brought to view. There also exist, in Spain, several intermediate breeds, among which are the Pyrenean races, with remarkably fine wool, and somewhat resembling those on the South Downs of England. In general, they are polled; but some have horns, which turn behind the ears, and in the males, project forward half a circle. Their legs, which are short, are white or reddish; their faces speckled, and in some, a small tuft of wool grows on their foreheads. Their color varies from white to a reddish yellow, and in a few instances they are entirely black. There is also another race in Biscay, which have from four to six horns, but they are not of the fine-wooled variety.

As my remarks will be chiefly confined to the Merino breeds, it may not be uninteresting to offer a few suggestions relative to their origin and the fineness of their wool. "At a certain time," says Columella, who wrote on husbandry more than 1800 years ago "when some wild fierce rams of a wonderful color, as other beasts, were brought from the neighboring parts of Africa, to the municipal city of Cadiz, by those who entertained the people with public games and shows, Marcus Columella, my uncle, a man of quick discerning genius, and a famous husbandman, having bought some of them, carried them to his own lands, and when they were tamed, admitted them to couple with covered sheep. These, at first, brought forth rough bristly lambs, but of the color of their sire; and afterwards they themselves, being put upon Tarentinian or Greek sheep, generated rams of a fine fleece. Moreover, whatever was afterwards conceived by them, resembled the color of the sire and grandsire, but the delicacy and softness of the dam." In this manner Columella said that any colors or outward appearance whatsoever, that was in beasts, did return with a mitigation of their fierceness and wildness, through the several degrees of their descendants; and in buying flocks, the following are the things, for the most part, which he thinks ought to be observed in common. "If the whiteness of the wool pleases you most, you shall always choose the whitest males; for, of a white male, there is often produced a dark tawny offspring; but that which is white is never generated by one that is red or black." The example of Columella, of importing African rams, was repeated by Don Pedro II. king of Arragon, in the early part of the XIIIth century, and afterwards by Cardinal Ximenes, prime minister of Spain, and to that epoch is to be ascribed the superiority of Merino wool over that of all other domestic breeds. With regard to the cause of this superiority, some impute it to the sheep passing their lives in the open air in a dry and equable climate; others to the nature of the soil and vegetation upon which they feed, and to their migrating semi-annually from one part of the country to another; and a third class to the peculiar manner of smearing their backs at a certain period, a process hereafter to be described; but it is most probable that they do not so much owe the fineness and quality of their wool to the reasons above assigned, as to the uniform, systematic and unceasing care with which they are managed through every stage of their existence, and the pure, unmixed and isolated condition in which each flock is kept from generation to generation. For it appears as a matter of certainty, that the sole design of removing these sheep from one district to another, is to feed; and it is equally certain that these journeys never would be undertaken, if a sufficiency of good pasturage could be found in one place during the year; and, besides, it is a noted fact, that there are stationary flocks in the plains of Estremadura, where frost is seldom seen, and about the mountains of Old Castile, where snow often falls in June, both of which produce wool of an equal degree of fineness to that of the itinerant flocks that change their quarters every six months. In has been asserted, and believed by some, although controverted by several well informed persons, that regions abounding in aromatic plants are more favorable to the health of sheep, and consequently to the fineness of their wool, than those entirely destitute of such plants. Two instances, well supported, will, perhaps, be sufficient to refute this opinion. The territory of Montaña, in Old Castile, is one of the most elevated tracts in Spain, where the neighboring mountains rise in the atmosphere to a line of perpetual snow. Its hills consist of sandstone, covered with a deep clayey soil; black marble marked with white and yellow veins; grey limestone, containing marine petrifactions, talc, gypsum, and numerous saline springs; and in the plains and valleys emery abounds, both occurring in large blocks and incorporated in the soil. The soils of the mountains and hills are noted as being of a similar composition with the rocks beneath them; and experience has taught the Spanish farmers, that the sod which covers the limestone districts is best adapted to the growth of wheat and maize; that the clayey soil lying upon the sandstone, is stiff and difficult to till; and that the intermediate soils, resting upon mixed formations, are not very productive without the application of manure. The hills and plains of this region, which are destitute of aromatic plants, afford the finest of pasturage to numerous herds of sheep, cows, and horses; the two latter of which, are fed on hay during the winter months—a very rare circumstance to occur in any part of Spain, or the south of Europe generally. The other instance referred to, is the territory adjacent to the town of Molina, in Arragon, which abounds in aromatic and odoriferous plants, and is celebrated for its good pasturage and fine flocks; yet their wool is of no better quality than that of the sheep of Montaña, where no aromatic plants are to be found. The hills and mountains about Molina are composed of red and grey sandstone, limestone, gypsum of various colors and stages of decomposition; dark and light-colored granite, intersected by numerous veins of lead, iron, and copper, the latter of which contains silver, sulphur, and arsenic; and all the surrounding country is rich in springs from which large quantities of salt are annually made. Without digressing further from the subject, it may not be improper to state, that the pastures of Spain are generally prolific in sweet grasses suitable for grazing, several of which are indigenous, and others have been introduced from northern Africa, the east, and from other parts of Europe.

That the quality of wool depends much upon climate, there can be no doubt; for it is a well established law, that the wool of sheep, in the torrid zone, degenerates into a species of hair; and in very cold, rigid ones, though fine near the roots, it becomes coarse towards the ends. Hence, it is only in temperate latitudes where wool approaches to a state of perfection; and its fineness in the Merinos, doubtless, is owing, in a great measure, to their being able to pass their lives in the open air, free from the extremes of heat, cold, and moisture, common to some countries, and where their unobstructed but less abundant perspiration is allowed to be swept away as fast as it flows. It is a remarkable fact, that all the sheep in Spain which constantly live in the open air, perpetuate their color, and other properties, to their progeny; and it is equally remarkable, that the swine of that country, which run wild in the woods, are invariably clothed in fine, curly, black hair; and it is proverbial that, "*Never did a Spanish hog's bristle pierce a shoe.*"

D. Jay Browne.

New York, December 10*th*, 1844.

FARMING IN FLORIDA.

The Worcester Plows.—The plows you sent me have come to hand. With their appearance I was very much pleased, and with their performance *perfectly* satisfied. I tried them first when the ground was as dry as it could be from a drought of near *two* months, and immediately after a rain of twelve hours; in both instances the work was complete. The excellence of the operation was in proportion to the size of the plow. The plow No. 2 B, was drawn by two mules easily, and accomplished its work most effectually. I have a great desire to try the Eagle plow now, one size larger.

Superior Healthiness of Corn Meal for Mules.—The corn and cob crusher you sent me is exciting much attention. All the corn now used by stock on my plantation is first ground in this mill, and I find thereby not only a great saving in long forage, but that the health of the animals is greatly promoted. Formerly, my mules suffered much with the *colic*, and my usual loss has been from one to three every year from that disease; but since I have had the crusher (now near eight months), there has not been a single case of colic in a lot of twenty-four mules, fed three times per day on the ground food.

Marl.—Since reading Ruffin's Essay, I have discovered marl on my plantation, but have yet made no experiment with it, merely because it is inconvenient to get at it. The bed commences six feet below the surface, and continues without change twenty feet, as far as I have penetrated. It appears to be a mass or concretion of various minute shells. It effervesces rapidly in muriatic acid, and even common vinegar. I design making some experiments with it soon.

Egyptian Corn.—One word more about Egyptian corn. It is now green, with a crop of from five to eight heads from each root more than half matured. This, should it mature, will be the fourth time ripe seed has been gathered from one planting. From the manner it continues to send up shoots from the old root, I am induced to try if it will not rattoon next spring, by protecting it this winter.

The low price of the great southern staple is having the happy effect of causing proprietors to give more of their personal attention to their plantations; and, as a natural consequence, producing a taste for the science of their profession, and a demand for agricultural publications and improved implements.

Robt. W. Williams.

Tallahassee, Fa., 13*th Nov.*, 1844.

THE BUFFALO BUSH.

Can any of your correspondents inform me whether the Buffalo Bush is cultivated in the Eastern States, and if so, where it can be obtained and at what price?

Catlin describes it as growing naturally in great profusion on the borders of the Missouri, below the mouth of the Yellowstone, in lat. about 47° north. He says, "it lines the banks of the river and defiles of the Bluffs sometimes for miles together, forming almost impassable hedges so loaded with fruit that their boughs were everywhere gracefully bending and resting upon the ground. It is the most beautiful ornament that decks the wild prairies, forming a striking contrast to the rest of the foliage, from the *blue* appearance of its leaves, by which it can be distinguished for miles in distance. The fruit which it produces in such incredible profusion, hanging in clusters to every limb and twig, is about the size of currants, and not unlike them in color and flavor, being acid and almost unpalatable until they are bitten by the frosts of autumn, when they are sweetened and the flavor delicious, tasting much like grapes, and I am inclined to think would produce excellent wine. The shrub resembles some of the varieties of the thorn, though it differs certainly in the color of its leaves. It grows to the height of 6 or 7 feet, and often to 10 or 12, and in groves or hedges for miles in extent. We several times took a blanket, and spreading it under the bushes and by striking the stalk with a club, we received the whole contents of its branches in an instant on the blanket. We frequently got 4 quarts from a single blow, and the bushes, relieved of their burden, instantly flew up to their native position." Such a shrub must be a beautiful ornament to pleasure grounds, and you will confer a favor by eliciting information where it can be procured. The intercourse with that region is now so frequent by our western citizens, that it could be easily procured and sent here in great abundance. RUSTICUS.

We are indebted to Mr. Browne for the following information in relation to the above inquiries, and would refer Rusticus to Mr. B's work on the trees of this country, which will shortly be issued from the press.

The Buffalo Bush (*Shepherdia argentea*) is perfectly hardy in any part of the United States, and is one of the first trees to announce the return of spring, often flowering in the neighborhood of New York in March. It arrives at great perfection in Messrs. Winship's nurseries, in Brighton, near Boston, where stands the parent tree which gave rise to all the plants now cultivated, both in Europe and in this country. It was planted in 1823, from seeds sent from the Rocky mountains by Lewis and Clark, and has attained a height of about 20 feet. This species has also been propagated in the vicinity of Boston as a hedge plant, and shows no want of hardihood or vigor of growth. Trees 3 to 5 feet high may be obtained in most of the American and European nurseries, for about 50 cents each, single, and with a reasonable deduction when larger quantities are required. If wanted for a hedge it would be best to obtain the seed, which may be had for about $1 the quart.

DRIVING SHEEP TO THE WESTERN PRAIRIES.

I HAVE already written "Advice to Western Emigrants," as well as some information upon the subject of keeping sheep in this prairie country, "Cost of a Prairie Farm," &c., for which see Vol. I. of the American Agriculturist. I now propose to furnish your eastern readers a *guide-board*, to direct those vast flocks of sheep whose heads are turned westward to stock the prairies; and these I will start from the western part of New York, and drive them to the north-western corner of Indiana, and there put them into winter-quarters.

I will suppose a flock of 1000 sheep, with a large proportion of ewes, at least three-fourths, and about 30 good rams. I will also suppose the lambs yeaned about the 1st of April, and shearing over the 1st of June.

> "Then up and away with jingling bells,
> Over the hills and through the dells;
> The prairie land is far away,
> But full of grass and sweetest hay."

But first of all, before you start, *get ready*. And like the member who spoke upon the "hog law," who remarked that "he ought to know something of 'em, for he was brought up among them," I would also have you during the drive as familiarly connected with the sheep as he was with the hogs. Every night you must lie down with the flock, and with them rise in the morning. To do this then, first of all, before you start, I say again, *get ready*. Shall I tell you how? "Yes!" Well then—first procure a good stout, steady, quiet yoke of oxen. "Ha! ha! ha!!! to drive sheep with, hey! Why, confound the fellow, he is going to plowing among the stones of his old native state." Oh, no! I am going to tell you how to drive sheep with a yoke of oxen; to which I wish you to attach a good substantial wagon, with a box 14 feet long, having boards about one foot wide projecting out over the wheels, to support the cover, and thereby make more room inside, which is to form a house in which you will cook, eat, and sleep for the next two months. In the forward part you will have a small light cooking-stove, with all your dishes of tin; a table with folding legs (the projecting board upon each side forming seats); and upon a platform made level with the projecting boards you will have ample room and space for a bed for yourself and three hands, while underneath you have stowage room for trunks, &c.

Procure for yourself a cheap saddle-horse, which you can turn out upon grass at night, or tie to the wagon and feed, and two dogs, and with three steady, sober young men, and then, after provisioning your ship, you *are ready*.

Of course, you will not neglect to put on board an axe, a water bucket, and sundry "small fixings," that will enable you to live without committing that heinous sin—"borrowing."

You must, particularly at first, and on dusty or muddy days, drive slow—not over ten miles—increasing as the weather and roads are fine, to 15 miles. Upon rainy days, don't expose yourself, and hands, and flocks, to disease and death, merely because "it is such hard work to lie still." Keep quiet—drive slow—let the sheep graze—and be sure that you get up in the morning, and put the sheep to eating the dew—rest an hour at noon, and always stop, the sun an hour high. And above all things before you start, procure an account of the sufferings of the prisoners confined in the black hole of Calcutta, and whenever you are tempted, "to save trouble," to shut your flock up at night in some dirty little yard, just read that account before you do it. Give them at night ample room to spread themselves.

After you have got a little out of the settlements you need not seek for a lot at night at all Here now your horse comes of use. Ride ahead, and select some good spot for your camp; place the wagon, and gather the flock around it, and with a little salt tell them that is their home. Then let them graze till dark, and then herd them all up around "home," and they will soon lie down, and your dogs under the wagon will take care of the rest till morning. You have no idea how cheap you can travel in this way. The expense on the road will not amount to $1 50 a-day.

A few sheep will fall lame. These and any sickly lambs, should be at once disposed of for what they will fetch; as they tend to detain the whole flock, and soon cost more than they come to.

I would advise that the flock should be of a medium grade of wool, and all strong young sheep. If a finer grade of wool is desired, let the bucks be selected for that purpose. A larger per cent. of loss always takes place the first year, than after—and fine wool grows upon the most delicate carcass. This mortality the first year is owing to the fatigue of driving, and some difference of climate and soil, and a very great difference in the feed, both green and dry.

I will suppose this flock has arrived at the end of its long journey in the month of August, and that you desire to establish winter-quarters upon an entire new plan, or at least upon some small improvement, that you may purchase. I would prefer a location of prairie land adjoining timber, having the timber with plenty of brush on the north and west side as a wind-breaker.

After your arrival, the flock must be in the constant care of one hand and the dogs, or for lack of dogs he must have a horse, as the sheep feel a constant restless disposition to find the outside fence of the "big paster." They must also be put up at night as near the house as possible, and even then a little sneaking prairie wolf will sometimes creep in and make a little mutton,—though a good dog will keep them off, and they are fast growing few and far between. They are easily destroyed by poison, the best for that purpose being strychnine, which is the concentrated poison of nux vomica. One grain is sufficient to produce death in any of the canine race, or other noxious "varmint." It may be administered by putting it in pieces of meat just large enough for a mouthful; or otherwise it is a very good way to put lumps of lard upon chips, and put the poison in the centre, and then place the bait around the sheep-fold fence, or in any other place likely to be visited by the wolves. The big wolves are not prairie settlers. Sometimes, though very rarely, a sheep is bitten by the massasauger, a small black rattlesnake, and then, for aught I know, you will soon have a dead sheep. In my next I shall speak of winter-quarters. SOLON ROBINSON.

Lake Court House, Ia., Nov. 27th, 1844.

We shall feel under particular obligation to any of our western friends who will furnish us with an account of the diseases to which sheep are most subject on the prairies, and the best preventives and cures for them. The crop of wool grown in the United States, in a few years, will scarcely be inferior in value to that of cotton; and anything which will tend to cheapen, improve, and add to the security of its production, will be greatly for the public good.

THE PAST, PRESENT, AND FUTURE PROSPECTS OF FARMERS OF THE WEST.

WHEN we look back at the past, we are struck by the remarkable alterations in the pursuits of the people, and by the changes in the prices of articles. Many years ago a few fine sheep were brought to Kentucky and sold at enormous prices These prices are gone, but the flocks of the state remain permanently improved. Fine horses commanded also at several times the value of a good landed estate. These too have greatly diminished in price, yet the whole stock of the state has been improved by their introduction. The mulberry mania, the *cow* pox, and the *swine* fever succeeded. The high pressure prices for all engendered by them have passed away. Yet silk is now made, and the herds of cattle and hogs have been greatly improved. The temporary evil is gone, and much permanent good remains behind to benefit the people. The prices of lands, grain, hemp, and stock, too, were constantly varying from high to low. No calculations as to price could be safely made; no engagements dependent on the sales of agricultural products were free of ruinous peril. Many persons, when hemp sold for $7 and $8 per cwt., and beef for 5 and 6 cents per pound, made pecuniary engagements predicated on these prices, and were hopelessly involved. Now, a change has come over the spirit of *our dream*. Shall we profit by it? Good land, it is true, is still held at high prices. But all the products of farming labor are very low, and find us under the dominion of habits produced by high prices. This is our present state and condition.

We talk about governmental economy, and we must practise it at home in our families, or suffer. Retrenchment of expenses is the only safe remedy for the evils of diminished revenue. We must avoid the grocery and the dry goods store, eat and drink what the farm produces, and wear what our wives and daughters spin and weave. Domestic manufactures require no protection, and have but one opponent—*False Pride*. But he is stiff-necked and obstinate as a mule. When will the present dull and flat state of things cease? What causes are at work to produce a better? None visible in the vast horizon. The nations of Europe are at peace, producing their own supplies, except of cotton and tobacco; while the agricultural products of our own country are increasing in a ratio far greater than the demand for them abroad, or than can be produced by the diversion of all other classes at home from field labor. If products for sale cannot be made to command remunerating prices, they will cease to be made, and the importing merchants will be informed of the true state of the country, by their difficulty of collecting from their retailing customers, who sell to the people, and by their inability to dispose of recent importations. People necessarily cease to buy when they are unable to sell wherewithal to pay. If we sell at home, we must buy at home; for we shall have nothing to send where there is no demand. We must then cease to use imported articles unless our exports will pay for them; exports of productions, I mean, for the money of a country is soon exhausted, when it imports and pays in money. We must then export in productions or manufactures, if we consume imported articles. So far as our manufactures at home can supply us with needed wares at fair prices, there is no necessity to the consumer, so far as he is such only for imported wares

As the home supply of manufactured articles increases, the importation of them necessarily decreases, and when we reach the ultima Thule, the extreme end of a full supply, what then? For the support of the United States government? We must look to the future as well as back, at the past from our present position. For verily the farmers are deeply interested in these matters, and certainly their consideration is not out of place in an agricultural paper.

For the present, the fever for speculation and the rage for riding hobbies excited by comparatively high prices for our produce, have both subsided, nor will they again become epidemic, till higher prices come round again. That may not happen shortly. In the mean time, we must make the most of our diminished resources by economy and good management. To produce the most at the least cost to the land and the pocket, is the highest interest of every cultivator of the land, and this cannot be done without *knowledge.* This is the time then to foster all the means of acquiring it. Farmers clubs; agricultural and horticultural societies; agricultural papers; and above all, to institute agricultural schools. Science, through the aid of institutions, is brought to every art except that of agriculture; and this the most important of all, is left to empirical tentative practice.

Who are the best farmers in every country? The most ignorant? Certainly not. There cannot be half a dozen *best ways* of doing the same thing under similar circumstances, requiring different amounts of time, labour, and expense. Yet we see them practised by men who would all adopt one way if it was proved to be superior to the others. Agricultural schools would demonstrate by repeated and accurate experiments, problems in practice which the cultivators of the soil would as certainly use, as the house carpenter now uses the 47th proposition of Euclid in squaring his work. Is it not strange that among all the munificent donations made by wealthy, patriotic, and public-spirited men for such a variety of purposes, not one has conferred an enduring benefit on his country, and immortalized his own name, by endowing an agricultural institution? Whoever shall raise up such an institution in his lifetime (not leave it to his executor), will be entitled to, and will receive the admiration and gratitude of countless generations.

JOHN LEWIS.

Llangollen, Ky., Nov. 10th, 1844.

EXPERIMENTS IN PLANTING CORN.

During a short visit with which I was honored by your father (Mr. S. Allen), in August last, I showed him a field of corn with which he was so much pleased, that he requested I would give an account of its product, which I promised to do, through the American Agriculturist. The field lies north-east of my orchard, and adjoining thereto—a locality with which you are familiar.

When I purchased the plantation on which I now reside, in 1812, the field had been in cultivation in one continued succession of corn crops, for some 20 or 25 years. So soon as I could prepare the ground for the purpose, I put it in Timothy meadow. As it lay adjoining my sheep house, I permitted a small flock of my sheep, during the time they were fed, each winter to run on it. I also applied to it the manure derived from my sheep fold. In this way, in the course of 12 or 15 years, which I suffered it to remain in meadow, it was restored to its native fertility, being naturally as rich as the best Kentucky land. I now raised several crops of tobacco on the ground, when it was again put in meadow, and treated as above. For the last three or four years, preceding the present, it has been in hemp.

Early in April of this year, it was all plowed and once harrowed, and laid off, with great exactness, 3½ feet each way. It was planted on the 13th of April, the ground being very light, and finely pulverized The corn came up well, and, in due time, was thinned out to three stalks in a hill. It was carefully cultivated by plowing alternately, each way, with the common Kentucky shovel plow, and going over once with broad hoes. The season, up to the 2d of July, was tolerably favorable, though there was too much rain for a first rate crop. The corn was now generally getting into silk. At this period when corn requires much rain, or at least frequent showers, to cause the corn to *ear* well, a drought came on, and no rain fell for two weeks. During this period the atmosphere was very dry, and windy. The consequence was, that there was scarcely an instance of two ears being produced on the same stalk, and even the single ears were much reduced in size. Although, after a drought of two weeks, we had again a succession of light showers; yet they came too late to be of any material benefit to corn crops, as forward as mine. Under these disadvantages the yield fell greatly below what it would have been had not the severe drought of July intervened. Upon carefully measuring an acre, of about an average quality of the field, the product was 77 bushels. I am convinced that if a due proportion of rain had fallen, during the first half of July, the yield would have been fifty per cent. greater. The corn was of the white species, a medium between the flint and the larger kinds, which are more productive, but not so good for bread.

Permit me now to give you the result of another experiment, made during the present year, to ascertain the advantages of planting corn more closely than usual, as recommended by some of our farmers, who have succeeded in raising very large crops under favorable circumstances. My experimental crop was planted on the 12th of April, one day before that described above, upon land which had been cleared in 1810, and preserved in its native state of fertility, by a due proportion of grass crops. Its fertility was about equal to that described above, and was in a field lying on the same ridge, north-west of the rivulet you speak of running through my farm, in your November Number, page 322, of your last volume. This field had been in clover for the two years preceding, and was plowed up last fall, with the view of putting it in hemp, and was consequently in fine condition for hemp or corn.

On one side of the field, I laid off in an oblong square, four acres, each acre lying equally well, and of equal fertility. This ground was again plowed early in the spring, and levelled with the harrow. It was now laid off the long way with great accuracy 3½ feet from center to center, and then checked off the other way in rows; the *first* acre, 4 feet apart; the *second* acre, 3½ feet apart; the *third* acre, 3 feet apart; and the *fourth* acre, 2½ feet apart. The whole was planted the same day; and in due time the three first acres were thinned out to three stalks in the hill, and the fourth acre to two stalks in a hill. The number of stalks in each acre (if none had been missing) would have been as follows:

No. 1,	3½ by 4	feet,	9,335.
2,	3½ by 3½	"	10,668.
3,	3½ by 3	"	12,447.
4,	3½ by 2½	" two in a hill,	9,956.

This crop, of course, suffered equally from the drought with that above described, and having more *outside rows* was more depredated upon by the crows, and did not stand quite as well or with such perfect regularity as the other in the hills. Making the proper allowances for these causes, I did not calculate upon quite as large a product as from the other field. Upon gathering and accurately measuring each acre separately, I found the product as follows: No. 1, 68 bushels; No. 2. 69; No. 3. 69; No. 4. 77½. Thus the acre planted 3½ by 4 feet produced nearly as well as that planted 3½ feet each way; and the latter produced the same quantity as that planted 3½ by 3 feet; and the acre planted 3½ by 2½ feet, and only *two* stalks in a hill, produced 8½ bushels more than either of the others. From this experiment, it would seem that in the best of ground, where *three stalks* are intended to be left in a hill, the distance, each way, should not be less than 3½ feet; and that where it is intended to plant more closely, not more than *two stalks* should be left in a hill. The acre planted 3½ by 2½ feet produced decidedly the best; but it was too close one way to be plowed with convenience. Thus planted there were 8¾ square feet for each hill. If planted 3 feet each way there would be nine square feet to each hill, and the distance would be more convenient for plowing both ways. I incline to think that planting 3 feet each way, with two stalks in a hill, would be the most eligible for convenience and product. As a single experiment is not very satisfactory, I intend, if I am spared, to repeat the experiment next year on the same ground, laying it off one way 3 feet; and the other 4, 3½ and and 3 feet, thinning the last to two stalks in a hill, and the other two acres to three stalks in a hill. In this last experiment I planted the same kind of corn as in the other. A. Beatty.

Prospect Hill, Dec. 1st, 1844.

To such of our readers as may not have seen the third volume of this periodical, it is proper to say, that they will find complete Northern and Southern Calendars published there, with full directions for the management of the Farm, Stock, &c. The Western Calendar, which we shall give monthly in this volume, is from the pen of one of the most distinguished practical farmers in Kentucky, the Hon. Adam Beatty.

WESTERN CALENDAR FOR JANUARY.

In this month, the soil is generally bound up by frost, so that no plowing can be done. But the farmer should have his plows put in order, and new ones procured, if needed, so that no time may be lost when the earth is in a proper condition to be plowed. Early plowing makes early crops, which generally—almost invariably—succeed best.

Care of Stock.—This is a trying month for stock, and all animals should be well fed, and protected from the wet and cold as far as possible; always recollecting, that where facilities for sheltering stock do not exist, the best substitute is *good feeding*. An animal in good flesh can withstand cold and wet twice as well as one of "Pharoah's lean kine."

Breaking Hemp.—In those parts of the west where hemp is cultivated, much of the cold, dry portions of this month may be appropriated to breaking it, as cold, frosty weather is the best suited for this process. Hemp spread the latter part of October of the preceding year, will have been sufficiently *watered* (rotted) to take up and put into shocks by the last of December; and the prudent hemp grower will by this time, have had all his brakes put in order, and new ones procured if needed (always secure those of the best possible construction), that no delay may take place in breaking out his crop. This is a heavy operation, and if not hurried on early, will run into the spring work and greatly retard the pitching of the crop; and will, moreover, produce a necessity for breaking in warm weather, when the process is more difficult and attended with some loss of lint.

Bulking Tobacco.—Tobacco cut in due season the previous fall, will have been profitably cured by the month of December. Much of the crop will have been *stripped* in that month, and a due proportion of what remains should be bulked down in stalk, for stripping in damp weather in January. Thus there will be no lack of employment in wet weather.

Management of Manure.—Hemp growers are usually not cultivators of tobacco. In wet times they may be engaged in bailing hemp—if they are furnished with a hemp press—and cleaning out their stables, cow sheds, &c. The best method of doing so, is to have the manure thrown at once into a tilt-cart and hauled to the field to which it is to be applied, the driver being furnished with a great coat to turn the rain. By having two carts the operation will be hastened, and one great coat will serve both drivers, Let it be recollected that when manure is hauled to the ground which needs it, all the *extract* drawn from it by the rains is given to the soil, whereas if left at the stable, this is entirely lost. Besides, there is a much greater loss by rapid decomposition and escape of valuable gasses, when the manure is left in a large bulk at the stable door.

General Observations.—When not engaged in other necessary work, as large a stock of firewood as possible should be laid up. Let this supply be always kept largely ahead, and there will be no necessity to stop other useful labors to haul wood to keep the family comfortable, and the cook supplied with this indispensable necessary. Graziers, who feed large numbers of cattle upon cut up corn, must *daily*—wet or dry—haul out their usual supply, on Saturday a double portion. The same wagons that haul out corn, may return loaded with wood, after the feeding for the day is completed. As this is a work of all weather, the hands thus employed should be furnished with oil-cloth coats to protect them from the weather, and thus save *doctor's bills*. In this inclement month, the children should be sheltered in comfortable school-houses, and engaged in laying a foundation for future usefulness in all the occupations of life. The farmers, too, in the long nights of January, may be profitably employed in reading the newspapers and instructive books, and especially in studying the best authors who have written upon agriculture, the most useful of all the arts, and thus uniting theory and practice, become perfectly skilled in their profession

Ladies' Department.

MATTERS OF TASTE.—*By Mrs. Kirkland, author of "A New Home," &c.*

FARMER DICKSON has a large farm and a larger family—things that go well enough together. He has lived long enough on one spot to have got everything comfortable about him—a good double house, with each row of trees, fence, path, and road around it, "as straight as a gun-barrel," as he says. (*Every one to his taste*, but *we* would rather have a little more variety in these matters. We think a winding or waving line is often a great improvement.)

Farmer Dickson has five daughters; good, industrious girls, able to make butter and cheese, to spin two days' work in one, and to weave flannels, blanket-shawls, and coverlets (in double-work), equal to any weaver. Polly, the eldest, has done so much of this kind, that she has never had time to get married. She has stores of bedding laid by; thirty-four pairs of cotton stockings of her own knitting; (one pair for every year of her age), and a Tuscan bonnet of her own braiding, which nearly cost her her eyesight. Is not Polly a fine girl? (*Every one to his taste*, but we have observed that Polly is quite out of her element whenever she is in company. She cannot sit still, even for half an hour, for the sake of reading or conversation. Her whole soul is absorbed in business, and when there happens to be sickness in the house she leaves all nursing to others, and frets because "the work" does not get on. So we shall not recommend Polly Dickson for a wife.)

Sarah is younger, and has not had time to turn her hands into *claws* with quite so many years of labor. But even she never gets leisure to look at a book. She gives more attention to dress than her elder sister, and so pleases more generally at first sight; but on further acquaintance, when it is discovered that she has not a word to say, but answers in most cases with a silent giggle, she is generally neglected for more sprightly girls. One young man, a surveyor, who put up for a week or two at her father's, was so much pleased with her appearance—for she is really a comely girl—that he had serious thoughts of paying his addresses to her; but happening to pass a whole day in her company, away from home, where she had not her usual occupations, he discovered the extreme emptiness of her mind, and being an intelligent young man, he turned his thoughts in another direction, and Sarah Dickson, seeing him depart with as much indifference as she had seen him arrive, went on making butter and cheese, as if that had been the business of life (*Every one to his taste*, but *we* think butter and cheese may cost too much.)

Farmer Dickson's third daughter differed from her sisters in many respects. She was considered the beauty of the family, and she used to spend all her leisure in preparing various adornments for her person, and particularly in curling her hair with a hot pipe-stem, which produced ringlets very charming in her eyes. On one occasion she was invited to join a sleighing party which was to conclude, as is generally the case, with a ball in the evening. Resorting to her favorite expedient, in her zeal to outshine herself as well as everybody else, she heated the pipe-stem too much, burnt off a conspicuous lock close to the head, and letting fall the instrument in her consternation, disfigured her neck with several blisters, so that she was obliged to stay at home. The story got about, and caused so much joking among the young people of the neighborhood, that the poor girl became quite sulky, and would not go out at all. She consoled herself by gathering a quantity of silkweed, of which she is now sewing for herself a cape or pelerine, which is to be very elegant. (*Every one to his taste*, but to *our* eye, a silk-weed cape looks somewhat as if it had been made of the skins of green goslings.)

If we seem, in these remarks, to cast some reflection upon our friends the Dicksons, it must be noted that all this extra industry is entirely superfluous, as far as pecuniary circumstances are concerned. Many years of unwearied toil, together with an increase in the value of land, have made Mr. Dickson richer than most of his neighbors, and secured an ample provision for his family. So that what we find fault with, is the miserable plan of toiling on, year after year, laying up stores of articles which are to be useless for a length of time, requiring much care to prevent their being spoiled by moths or mould, while the precious mind is left uncultivated, and the high and ennobling pursuit of self-improvement entirely neglected. In poverty, constant toil is a dreadful necessity; and what is the consequence? Too often, a complete crushing of minds which under happier circumstances might have brought forth fruit an hundred fold.

> "Where penury is felt, the thought is chain'd,
> And sweet colloquial pleasures are but few."

But where there is abundance, it is both sin and shame to narrow down our cares and efforts to the "things which perish in the using." It is certainly both the duty and the privilege of those who have enough and to spare of this world's goods, to devote some part of every day to reading. For old people, whose habits are obstinately fixed, it is usually difficult to begin a plan of this kind; but for the young, nothing more is necessary than, first, a sense of its propriety, and, secondly, one effort of resolution at the commencement. Literature has, in its very nature, something so attractive, that, once begun, it wins its own way. The young woman who has once found pleasure in a book, will be anxious so to economise her time that a portion of every day may be safely devoted to reading; and we will answer for it that those who spend their leisure—the proper leisure which every one ought to have who is not obliged to labor beyond health and comfort—in this way, will be the most agreeable girls in their neighborhood.

But our space allows us only to glance at this subject in the present number. At some future day we shall resume it, with further reference to the Dickson family.

CARE OF FLOWERS.—The cold by this time is so intense, that it behooves the ladies who have any regard to the healthful preservation of their parlor flowers, to pay particular attention to them. During frosty weather plants cannot absorb as much moisture as in the warmer seasons: be careful, therefore, not to over-water them. Sprinkle a little fine charcoal dust around each plant. As this dissolves and becomes carbonic acid, it is taken up by the rootlets, and assists in forming stalk, leaf, and flower. Charcoal adds greatly to the bright, fresh, green appearance of the plants, and should be kept in the pots at all seasons of the year: some plants will flourish in that alone without earth or other substances. Be careful to keep up the heat during the night, for there is more loss from want of this precaution than any other cause. Keep a thermometer in the parlor, and do not let it sink below 40 degrees; if you do, there will be danger of the frost injuring the plants. If it is likely to be so cold that the heat cannot be kept up to this point in the parlor through the night, then remove the plants to the cellar for protection.

Among bulbous flowers, the crocus, polyanthus, jonquil and hyacinth, are the most beautiful, and easily cultivated in January. The crocus will expand its petals exposed to lamp or candle light; for this reason it is particularly desirable to adorn the parlor at night. All bulbous plants should be exposed to the sun shining through the windows as much as possible, and be turned two or three times during the day, otherwise the foliage will become yellow. When they have done growing, cease to give them water almost entirely, or they will not flower. For a curious method of growing flowers in the winter, see our last volume page 373.

It was on the 10th of this month, ladies, that he who did so much for flowers, the celebrated Linnæus, died at Upsal, in the 71st year of his age. So far as it may be your province, copy his good works, and revere his memory.

To KEEP BOUQUETS FRESH.—These may be kept a long time in full bloom, by inserting their stems plump up to the flowers in water, renewed fresh every day, with a little charcoal in it; and occasionally substituting sea or salt water for the fresh. We thus kept in unfaded bloom, a superb bouquet of flowers given us by a Danish lady, to the end of an eight days' voyage from Copenhagen to St. Petersburgh. A glass put over a bouquet will sometimes recover it when prematurely faded. Bouquets should be made of flowers just bursting their petals, and not from those full blown. They then keep much longer.

To SECURE HANDSOME BALSAMS.—Carefully pick out from the seed bed all plants with *red* stems, and leave those with *white* stems.

NOVEL WAY OF CHURNING.—We cut the following from an exchange paper:

"Sarah, dear," said a waggish husband to his wife, "if I were in your place, I wouldn't keep that babe so full of butter as you do."

"Butter, my dear! I never give it any butter."

"No, but you poured about a quart of milk down it this afternoon, and then trotted it on the knee for nearly two hours. If it doesn't contain a quantity of butter by this time, it isn't for want of churning."

To MAKE HARD WATER SOFT.—All who have ever tried it know how difficult it is to wash in hard water, and that it takes much more soap to do so than with soft water. Dr. Clark calculated that by being able to soften the water in London by precipitating its limes, two-thirds of the soap used there would be saved. This would be equivalent to £200,000 ($1,000,000) a year. Pot or pearl ashes, or ley made from common ashes, is generally used to soften water; but these substances are so strong that they skin the hand. From two to four ounces of sal soda dissolved in a barrel of water is usually sufficient to soften it. From one to two quarts of wheat bran put into a kettle of water and brought to a boil, and then scummed off, will also render it soft. Some tie the bran up in a bag and boil it; but we are not certain that this is as effectual as putting it in loose.

SIMPLE CURE FOR CROUP.—The Journal of Health says, when a child is taken with croup, instantly apply cold water (ice water, if possible), suddenly and freely to the neck and chest with a sponge. The breathing will almost instantly be relieved. So soon as possible, let the sufferer drink as much as it can; then wipe it dry, cover it up warm, and soon a quiet slumber will relieve the parent's anxiety, and lead the heart in thankfulness to the Power which has given to the pure gushing fountain such medicinal qualities.

BUCKWHEAT CAKES.—To three pints of buckwheat flour, mixed into a batter, add one tea-spoonful of carbonate of soda, dissolved in water, and one ditto of tartaric acid, dissolved in like manner; first apply the carbonate, stir the batter well, and then put in the acid; thus the use of yeast is entirely superseded, and light cakes are insured. One great advantage is, that the batter is ready for baking as soon as made.

Another (*considered superior to anything of the kind*).—Dissolve a tea-spoonful of super-carbonate of soda, in a sufficient quantity of sweet unskimmed milk; three tea-spoonfuls of cream of tartar with a heaping quart of flour, mixed dry and well rubbed together; then mix up the whole and bake immediately. If milk is not at hand, water will answer, slightly sweetened with sugar, and a little shortening added to it. The flour and all other materials must be of a first-rate quality.

NUTRITIVE QUALITIES OF TEA.—M. Peligot states that tea contains essential principles of nutrition far exceeding in importance its stimulating properties; and shows that, as a stimulant, tea is in every respect the most desirable object of habitual use. One of his experiments upon the nutritive qualities of tea, as compared with those of soup, was by no means in favor of the latter. The most remarkable products of tea are: 1st, the tannin or astringent property; 2d, an essential oil to which it owes its aroma, and which has a great influence on its price in commerce; and 3d, a substance rich in azote, and crystallizable, called *theine*, which is also met in coffee, and is frequently called *cafeine*. Independently of these three substances, there are eleven others of less importance, which enter more or less into the compositions of tea of all the kinds imported into Europe. What was more essential, as regards the chemical and hygienic character of the plant, was to ascertain the exact proportion of the azoted (nitrogenized) principle it contains. M. Peligot began by determining the total amount of azote in tea, and finished by finding that it was from 20 to 30 per cent. greater than in any other kind of vegetable. M. Peligot states that by reason of this quantity of azote, and the existence of cafeine in the tea leaf, it is a true aliment.

BOYS' DEPARTMENT.

WELL, boys, it is some time since we have paid any attention to you, for which we have had many complaints, not only from yourselves, but your parents also. We propose, therefore, during the present year, to remedy this matter as well as we can, by devoting from one to three pages per month of the Agriculturist to your benefit, and trust that we shall have your very efficient aid in our support, by monthly contributions from your own roguish pens—for who can tell what a boy wants so well as himself? If we could only rejuvenate ourselves (that is, grow younger) five and twenty years, when to possess a pet lamb, a puppy, a small stock of poultry, and a patch for cultivation in the garden, was the height of our ambition, we should be a capital hand at this department; but alas, our boyish days have gone, never to return—and we have no youngsters of our own to give us hints or ask us questions, so that we are fearful of our success in interesting you, my fine fellows!

BREEDING PIGEONS.—Such of you, boys, as have had the advantage of reading the first volume of our work, will well recollect the excellent chapter we there gave you on the different varieties of the pigeon, and the best method of breeding them. We dare say, now, you have plenty on hand; for though they generally lay only two eggs at a time, yet, as they usually hatch monthly, and the young soon pair and follow the example of their parents, they propagate themselves very rapidly. Linnæus computed the increase from a single pair in four years at 18,000! It is our intention to show you some cuts of pigeon-houses in the course of the year, and perhaps a few portraits also of pigeons, together with further hints upon their breeding and management: but, for the present, we shall content ourselves by merely giving you a luscious method of fattening them, which we have lately received in a letter from our excellent friend Sambo, whose acquaintance you will remember we had the pleasure of making in Kentucky, and whom we could not persuade at our interview there to impart to us the secret of his art of fatting poultry. He thinks this of the pigeons will explain it in full; so, boys, you will now have no excuse if you do not present your friends with fine fat poultry for Thanksgiving, Christmas, and New-Year.

Sunny Rock, in Old Kaintuky, three
week afore Merry Christmas.

Masser Allen,—Honored Sar: I'se mity sorry when you says in your last No. you wasn't gwine to write no more about Kaintuky, for people 'way down sun rise, as dey calls he whar you live, can talk what 'em please about de Empire state, Sambo knows well (tho' he neber been dere), he aint nothin to dat Paradise, old Kaintuky. And Masser John, he say so too, and he bin down dere last winter sellin' hemp and Durham Cattle from he plantation. You keep a mity heap of peoples in your big city of New York, but doesn't old Kaintuk feed 'em! Please tell me dat. Masser Allen. I reckon we hab a cave here dat'll swallow you all up like a' alligatur on de Massesseepy does a swarm of flies. And talkin' about de Massesseepy, dat is de most oncommon place I eber did see. Wall, you bin dere, Masser Allen, so I say no more; ony, I wish de water was a *pigeon-pie*, and not a '*sea-pie*, to eat instead ob drink him, for de way he did grip dis nigger's bowels, wusn't slow; and I'se mout well believe I swallow a whole plantation in de nasty, rily, horse pond stuff, in gwine to New Orleans and back to old Kaintuk.

Now de pigeon-pie, dat make me tink ob our 'quaintance on de road to Loudeville, when Masser Allen tried to come it ober Sambo about de way he fat his chickens.* I didn't know you den as I does now, or I'd telled you ezakly, and not put my finger on de nose. I doesn't write as good as some, but as it is to de boys I 'dress myself, I hope 'em understand deir luvin' friend Sambo; and if dey likes his talk, seein' you hab quit Kaintuky, he'll give 'em lingo now and den. Boys, dere is a mity heap yet to tell about what de poets call "de Paradise ob de West," which Sambo tinks means in prose, a great country to grow big corn and cattle, rich grass, sweet taters, and milk and honey as is here so plenty in old Kaintuky!

Wall gwine on de Massesseepy, most down to New Orleans, you sees big rice fields, and you sees big sugar houses. Den you sees, too, alway a mity smart flock of pigins, and dey looks so fat and plump, dat dey hardly sees out deir purty eyes. You needn't salt deir tails to cotch em, dat easy enuf dey be so fat. Oh! dey so makes my mouf water, I almost mind to steal 'em. But I do no such ting nudder; I mind de ten commandments minister toch me at meetin' Sunday, and let em 'lone. When I got to New Orleans, I ask Masser John for four picayune to go to market arly, and buy a par of pigins; and such a breakfast I got as I neber eat afore, since I roast de polecat wid de 'possum and sweet 'tater. So I sot down to study how I mout make him so fat too. Wall I tink it was de sugar and de rice, he pick up on de big plantation—for I sees 'em in de crop; but dat not enuf for Sambo, I want to improve upon de fat, and so *outsell* ebery body in de market. Now, Masser Allen call he Sambo "a genus," and so he be; and so I sot heself to study to make de pigin a sweeter fat dan at New Orleans. Wall, I lay down barehead in de hot sun, on de hurricane deck ob de steamboat comin' up de Massesseepy, and study—den I go down and sweat afore de hot fire under de boilers, and study—den I sing de boatman song so loud dat I drown de noise ob de blow pipe—den I dance de double shuffle—den I lay down in de sun agin; but arter all, I find out just nofin—I ony make my head and shins ache. At last I gits so tired wid study, I goes to Masser John, and ask he. Den he begins in a most oncommon hard kimik to 'splain Mr. Biglie [Sambo probably means Liebig's Chemistry,] about car-bones, [carbon,] ox-gins, [oxygen,] and high-gins, [hydrogen,] ob de sugar; and de starch, de parents-cum-eh, [parenchyma,] de gluten, de force-fat [phosphate,] de me-sole [mesole,] in de rice, dat I tinks at last on *my own souls*, I be de most cumflustered nigger dat Mr. Biglie eber make. So I gin em up, and wont hear no more kimiks; but when I gits back to Sunny Rock and Dinah, I shuts my pigins up, and let em fly out once a day ony for exercise, and grub and gravel. Den I gin em plenty rice boiled in new milk, from Dinah's Durham cow, Big Lady, sweetened a tiny bit wid honey; and, for a change, baked sweet 'tater mixed wid a little possum meat and fat. Oh, Masser Allen! ye neber seed any ting like how he fat in tree week de pigin, hen, and turkey, on dis feed: it be worth comin' all de way to old Kaintuky to eat him. Masser John say it beat all his kimics to fits, and a cocked hat to boot; at which I so lauf, and lay down on de floor and roll, to tink arter all his books, I show better practice dan his Masser John college larnin', dat I fear I bust my biler, and I hab to call on Dinah and Tony to come and pull my hair and kick my shin, afore I can stop. Now dat is all de way I hab to fat de "lushous lookin' poultry," you tell of meetin' Sambo wid. And now, Masser Allen, you please send me your Agriculturist dis yere for dis recipe, den you will much oblige me, and mayhap I'se write some more.

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* See Vol. II., page 68.—ED.

Yours to sarve,

SAMBO.

Now, here you have Sambo's secret of fatting pigeons and chickens, and we must confess we think there is a good deal of philosophy in it, especially in the milk part, for we well recollect in our youth, of reading about "pigeon's milk," which, it is certain, fats the squabs very fast; and if it be so good for the young ones, we may infer that cow's milk, rice, &c., are equally good for old ones. But here is the description.

Pigeon's Milk.—One of the chief peculiarities of the common house-pigeon is the double dilatation of the crop, which expands on each side of the gullet, and which the bird is capable of distending with air, as is remarkably shown in the common cropper or pouter. It is in this receptacle that the food of the young is elaborated by being impregnated with a milky fluid, this fluid being more or less abundantly secreted according to the age of the squabs. When the brood are very young, their food is disgorged by the parents in a soft and pulpy state; as they grow up, it is less macerated, till they have reached the age of squeakers, and then the grains are expelled from the crop almost in their original condition. This curious provision in the pigeon is the nearest approach among birds to the mammæ of a higher class of animals. From the changes which take place in the state of the crop during the breeding season, the pigeon may be almost said to have, like the mammalia, periods of lactation. The fluid is of a greyish milky color, coagulates with acids, and forms curd; so that, after all, "pigeons' milk" is not the rare and impossible commodity which the common joke supposes.

Wild Pigeons.—These are beautiful birds, and their history ought to be familiar to you. They exist in vast numbers in the United States, especially at the West. We recollect when a boy, of having seen the sun literally darkened in their flight—as if it were hid in a thick cloud; and then the roar they made with their wings as they passed in their airy course, was like a squadron of cavalry in the distance marching at full gallop The eminent ornithologist, Audubon, speaks of them; but one of the finest descriptions of these immense flocks is contained in "Young Kate, a Tale of the Great Kanawha," written by one of the correspondents of this periodical, John Lewis, Esq., of Kentucky, a man of fine genius and varied learning. If your parents, boys, ever allow you to read a novel, this contains a good moral, much useful information, and is an exciting tale. Here is the account:

"Vast flocks of pigeons had been seen for several days passing by, all in one direction, and Mr. Ballenger had called the attention of his son and daughter to one flock, which stretched across the heavens from the northeast to the southwest; and although they were flying with amazing rapidity, it was fifteen minutes before the rear of the column had passed.

"'Now, let us suppose,' said Mr. Ballenger, 'that they fly only twelve hundred yards in a minute—and they are said to fly a mile, 1760 yards in that time—and the column to be only one hundred yards wide—and I am sure it exceeds that; if we allow two pigeons to the square yard in flying, there were then 400 times the length of the column, which was 18,000 yards long: this gives the prodigious number of 7,200,000 pigeons in one flock." Mr. Ballenger was startled at the result of his calculations.

"Take only the half of it,' said William Henry, 'and what an amazing number—upward of three millions and a half in a single flight! I killed one the other day, and he had at least a gill of acorns in his crop. Now I am sure that more than four times the number in that single flock passed over during the day, all going the same way—that is, more than fourteen millions; and if they only fill their crops once during the day, they would consume 109,375 bushels in a single day, and in the course of a year 39,921,875 bushels: more than enough to feed the mighty army of Xerxes! How are these creatures sustained through the whole year?'

'God, in his infinite goodness,' said Mr. Ballenger, 'has adapted the powers of his creatures to their modes of existence. The teeming earth is the pasture of all. He feeds the birds of the air as well as men and beasts, and he who accomplishes his purpose by the best and most simple means, has made a few feathers the instruments to birds of obtaining their supplies of food. They have not to pay the cost of carriage. The consumer is carried to the food, and not the food to the consumer. Birds are the Arabs of the air; and such is the rapidity of their flight, such the ease with which they pass over great spaces in a short time, that, whenever their appropriate food is exhausted in one part of the earth, or fails to be produced for a season, they seek it elsewhere, and by an unerring instinct find it. Take these pigeons as an example: if they only fly from their perch during one hour in the morning to their feeding ground, and take one to return at nightfall, they have eight or ten hours to ravage the fields and woods to the distance of forty miles from the roost: so that they can lodge at the same place every night till all their food is exhausted in a circle around it, the diameter of which is eighty miles, embracing an area of more than three millions and seventy thousand acres.'"

SCHOOL.—This number of our paper should find you all at school, learning your lessons with a zest and pleasure, equal to that of eating apples and cracking nuts, or playing blind-man's-buff, and go-hide-and-seek. You can neither feel nor see the necessity of this now; you must, therefore, take this advice as well as much other upon trust; as older heads are wiser than yours, and know from long experience what is best for you. And don't be content with the mere acquisition of reading, writing, and cyphering; but learn something of geography and grammar, and then what relates directly to your own profession of farming. And in order to do this effectually it would be well worth while to read and study at school many things which are contained here in the Agriculturist.

Chemistry.—You ought particularly to study the first elements of chemistry. It is not a difficult science at all, as many suppose, but as easy of acquisition as A B C was when you first began your alphabet. Chemistry is the foundation of science. It teaches you what all the materials of this earth are composed of; such as water, rocks, soil, trees, plants, grass, flowers, seeds, vegetables, animals, and your own persons. What a delightful thing would this be to know, and how useful to you!

Oxygen.—This is one thing you will find in chemistry. Is it hard to remember this word? We think not. Sambo, to be sure, makes a mistake and calls it *ox-gins;* but recollect that you have had greater advantages than this worthy colored man, and therefore ought to remember the word, especially as the first syllable of it always brings to mind the cattle you daily care for and drive. Then what is oxygen? It is a substance you can neither see, taste, nor smell; and yet more than half the weight of your own bodies, and every animal breathing, is composed of oxygen. Nearly half of every rock and stone you see—the ground on which you tread—and the house that shelters you, is composed of oxygen. Eight out of every nine pounds of water, is oxygen, and one-fifth of the atmosphere you breathe. Indeed, one half the weight of the crust of this great globe is this airy gas; some think it may be the same with the sun, moon, and stars. Now is this not wonderful? and is not such knowledge well worth your acquisition? But enough for one lesson.

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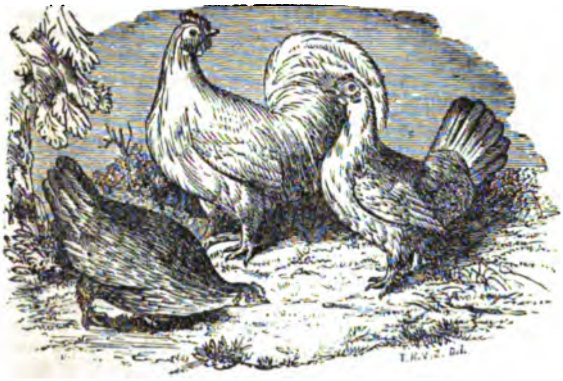

JAVA BANTAM.—(Fig. 4.)

Here is a group of Java Bantams. They are of a white color, with feathered legs, and do not differ materially from such as are quite common the country over. They are the prettiest fowls we know for boys to keep. Bantams are of a great variety of color, some larger, some smaller, and occasionally smooth-legged. There is a beautiful variety of this kind in New York, of a pure white color, and not much larger than pigeons. They mature early, are hardy, great layers, and very fond of being petted They are admirable fowls to run in the garden, as they pick up thousands of insects, and are so small that they do little or no injury.

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CHOPPING WOOD.—Night and morning, before and after school, many of you have to chop wood. This is delightful exercise. It expands the chest—opens the lungs—and gives vigor to your arms. Then never grumble at chopping wood, for it has made many a hardy, good-constitutioned man; and the writer of this would be delighted if he could swing an axe half an hour night and morning for exercise, cooped up as he now is in a great city, and obliged to follow an irksome sedentary life. In order to do your work well, see that your axe is sharp—of a proper weight for a boy—well hung to its handle—then go at it. In cutting off a log strike in quite slanting on both sides, it then chips easy. As you get into the stick, gradually lessen the slant, making the cut of the calf on each side as it nears the centre of the log, almost perpendicular. Be very careful not to cut yourselves, which can be avoided by keeping your feet spread out, and as far from the point you are chopping as convenient with comfortable standing. Be careful also not to strike stones or dirt with your axe.

AGRICULTURAL READING FOR BOYS.—On learning our intention to devote some space hereafter to the *junior farmers* of the country, a friend thus addresses us:

The Boys' Department is important, and I hope it will be renewed at once. Your views in relation to the value of agricultural reading suitable to the capacity of boys, are quite correct; and I regret that there are so few writers among us who have the happy faculty of making themselves perfectly understood, and at the same time of interesting and instructing those whom they address. But we must all try, hoping and trusting that some one will succeed at last I have two sons—one 12, and the other 9 years of age. They are great readers, and no subject affords them so much delight as that sort of agricultural reading which they can understand. The little fellows have fitted up with their own hands, a small out-house adjoining my dwelling, which they call their "farmery." It is in fact a little agricultural museum, and is filled with birds, beasts, and creeping things—not in life—but in pictures and preserved specimens; seeds of great variety; small implements; and other things too numerous to mention. Here they spend many hours when not at school; and on holidays will be engaged there most of the time. I find that they get many good ideas here which they have studied out for themselves, without the aid of the books I gave them, or any of my prompting. I need not add that their innocent and instructive occupations in this way relieve me from many anxious hours, that their absence in street play and the company possibly of vicious boys might otherwise give me. Occasionally, too, I find that they have visiters in the well-disposed boys of the neighborhood, who come in to chat with them, and view their specimens. This seems to interest them greatly, and affords all much amusement.

You will excuse this egotism and parade of a domestic subject; but as I have seen nothing of the kind elsewhere, I have only this specimen in my own family to speak of. The little fellows got this all up on their own hook, without letting me know a word about it till it was completed—partly, I suppose, because I had refused them a corner of my own sanctum for this purpose; and partly, probably, to give me a pleasurable surprise when completed. Now from my own agreeable experience in the benefit of this little affair, I can heartily recommend the example to all parents and children.

FOREIGN AGRICULTURAL NEWS.

By the steam ship Acadia, we have our European Journals up to the 4th December.

MARKETS.—*Ashes*, both pot and pearl, were slow of sale. *Cotton*, we regret to say, was much depressed, and the fall on the whole during the past month, had been full ¼*d.* to ⅜*d.* per lb. It is lower now than ever before known. Stock on hand at Liverpool on the 1st November, 808,000 bales, against 656,000, same period, last season. *Flour* was dull without change. *Provisions.*—*Beef* and *Pork* in good request. *Lard*, brisk, and has advanced. *Butter* and *Cheese* the same. All American provisions are pronounced decidedly superior in their packing to those of last year; the sales were consequently largely on the increase. *Tallow*, quiet. *Turpentine* has improved with considerable sales. *Tobacco* in good request. *Wool*, firm.

Money is decidedly easy. The Bank of England has reduced the interest to 2½ per cent.

American Stocks.—No transactions worthy of record.

Trade was pretty good, though not so brisk as per our last advices.

The Weather.—As an evidence of its mildness, apples and pear trees were in bloom, and with a second crop of fruit growing upon them. Strawberries and raspberries also were producing a second crop of fruit.

The Potato Crop in Ireland has proved the most abundant of any on record.

The Crops in Egypt are said to be quite deficient the past season.

American Candles recently shipped to England, have paid a nett profit of 4 cents per lb. The consumption of this article of our manufacture is largely on the increase.

Broom Corn.—Large quantities of the brush of broom corn, raised in the valley of the Ohio and elsewhere, have been shipped to England within three months past, together with broom handles, for the purpose of manufacturing the brooms there. By managing in this way, we understand that brooms can be afforded cheaper in Great Britain, than if made here and then exported.

Oats changing to Rye.—Dr. Weissenborn, and several other Germans assert, that they have repeatedly tried the experiment, in the most careful manner, of sowing oats the latter part of June, then cut them twice as green fodder, before shooting into ear, and that thus treated, a considerable number of the oat plants will live through the next winter, and in the following spring change into perfect winter rye. The Gardener's Chronicle of November 23d, copies these statements and others at full length, and seems to half believe them. We shall credit such changes when we see them with our own eyes, and probably not till then. We merely give a synopsis of the report, as so much news.

Large Potatoes.—The English papers seem to be vying with each other in recording the largest potatoes grown the past season. Single tubers have been found weighing, respectively, 3lbs. 15oz., 4lbs. 8oz., 5lbs., and 5lbs. 6oz. The last was a red kidney, and grown by Mr. Charles Knapton, of Foggathorp, in the East Riding of Yorkshire. A single haulm produced 100 potatoes, weighing 18lbs.

Extraordinary Pears.—Mr. Blackford, of Blockley, Worcestershire, gathered a few days since, from a small tree, 55 pears, weighing 36lbs.; two alone weighed 4lbs.

Gas Coal Tar for Iron Hurdles.—In using this, add a double handful of slaked lime to every gallon of gas tar—it will give a polish to them, and prolong greatly their durability.

To sweeten rancid Butter.—An agriculturist in the neighborhood of Brussels having succeeded in removing the bad smell and disagreeable taste of some butter by beating, or mixing it with chloride of lime, he was encouraged by this happy result to continue his experiments by trying them upon butter so rancid as to be past use; and he has restored to butter, whose odor and taste were insupportable, all the sweetness of fresh. This operation is extremely simple and practicable for all; it consists in beating the butter in a sufficient quantity of water, in which put 25 or 30 drops of chloride of lime to two pounds of butter. After having mixed it till all its parts are in contact with the water, it may be left in for an hour or two, afterwards withdrawn, and washed anew in fresh water. The chloride of lime having nothing injurious in it, can with safety be augmented; but after having verified the experiment, it was found that 25 or 30 drops to two and a half pounds of butter were sufficient.

A Short-Horn Controversy has commenced in the London New Farmers' Journal, that promises to reveal some things which we fancy certain personages who figured so largely formerly, in purchasing and sending out cattle for the American market, will not care to hear. The veteran breeder, Mr. Bates of Yorkshire, is one of the principals in this affair, and the way he shows up certain pretty *long green* horns is a caution to all beholders. There is scarce another man in England who possesses a tithe of the knowledge which he does on this subject, and we would give more for his single judgment in cattle breeding, than for all that the flippant talkers, writers, and jobbers, who have hitherto monopolized the public ear ever knew, or can know, or concoct together.

India Rubber for Stockings.—The French have introduced a new manufacture, by making stockings wholly of India-rubber thread; they are made by machines, and are said to be excellent in preventing rheumatic pains.

Miami Hams.—Whatever various opinions travellers may have expressed of America, in relation to its manners, customs, or political institutions, all have agreed in highly commending the numerous good things which it produces, for the gratification of the palate and the nourishment of the body. Amongst the many luxuries which they have recently transmitted to us, there is none that will prove more acceptable than their far-famed Miami hams, which possess a delicacy and perfection of flavor that would provoke even the gustative organs of Mussulmen or Brahmins, and force them to love the animal which they have been taught to abhor.

Waterproof Composition for Horticultural Purposes.—A very ingenious improvement has been recently introduced, by which calico or linen, the result of a chemical process, is rendered not only impervious to rain, but likewise transparent. As adapted to hot houses, and the other purposes of horticulture, this is a great saving on the score of expense and labor.

Extraordinary Crop of Wheat.—One of the finest crops of wheat we ever heard of, was the produce of two acres and one rood of ground, belonging to Mr. J. Attenborough, of Brampton, near Market Harborough. The wheat was cut and stored by itself, and when thrashed yielded nineteen quarters and one bushel (153 bushels) of the finest quality.

Remedy for Worms and Insects in the Stomach of Calves.—Take 1 pint of spirits of turpentine, 1 do. train oil, 2 oz. spirits of vitriol, 2 do. asafœtida, 2 do. hartshorn. Mix the whole together in a bottle, and shake it well before it is used. Pour a table-spoonful of the mixture down each nostril of every calf, for three successive mornings; the calves must be kept *fasting* the night previous to giving the dose. Should the first trial not succeed, repeat the dose in the course of a week or ten days.

Duty on Cotton.—A strong effort will be made at the next meeting of Parliament, to have this duty repealed.

Death of Lord Western.—This celebrated agriculturist died at his residence, at Felix Hall, on the 2d of November, in the 68th year of his age. His name will long rank with those of the greatest benefactors of agriculture in England

Cure for Hydrophobia.—A gentleman of Saratoff has discovered that the most efficacious remedy for the bite of rabid animals, is the insect called *tentania aurata*, reduced to powder, and given to the patient. Dr. Wagner has tested the remedy, and met with most satisfactory results.

Potato Sugar.—It is stated that they are successfully manufacturing sugar from potatoes in Great Britain.

Growing Cotton in Cheshire.—Mr. Maury, son of our late Consul at Liverpool, exhibited, a few days since, a fine specimen of Sea Island cotton in the Exchange News-room. It was grown at his residence, in Liscard, and the specimen shown consisted of two bulbs—one open, exhibiting beautiful cotton, the other closed. It is kept in a temperature of about 80.

Test for Guano.—Genuine guano, when burned upon a red-hot shovel, leaves a white ash of phosphate of lime and magnesia. The specific gravity of good fresh guano is seldom more than 1.68, water being 1.00.

A Heavy Hive.—A hive of bees recently taken up in England, that swarmed in June, weighed 88 lbs., of which 60 lbs. was pure honey.

Rhododendron Campanulatum.—This shrub comes from Gosaingsthan, a mountainous region north of the valley of Nepal. It is said to be the most beautiful of its kind. The best manner of propagating it is by seeds.

To Preserve Peas from Mice.—Previous to planting, saturate them in a strong solution of bitter aloes.

Gardening in Italy is said to be improving rapidly, especially in the Barromean Islands, Moriza and Padua.

Chatsworth Fountain.—A new Fountain has been set in action by the Duke of Devonshire. It is a single jet, and throws a column of water 300 feet high. He is also forming a huge rockery, some of the masses of which weigh upward of 370 tons.

Protection to Bark of Trees.—Twisted hay or straw-bands bound round the stems of fruit-trees, and slightly coated with gas-tar, will prevent sheep or cattle injuring them. Painting the bark with any kind of mixture may close up the pores of the outer skin, and thus retard the growth of the tree. By the above plan, the air has free access to the boll.

To Keep Plants and Trees on a long Voyage—A correspondent of the Gardener's Chronicle writing from New Zealand says, "I was led to recommend the packing of fruit and other trees in zinc cases, through an inadvertence it is needless to explain; and I regret this the more, as it may be productive of injurious consequences. The trees—apple and pear—to which I alluded in my former letter, and which, after being nine months out of ground (the vessel not sailing until five months after the time stipulated in the advertisement), are now flourishing in my garden, some of them having borne fruit this season, were packed in a deal case, in moss only, and without straw. At Valparaiso I witnessed another successful instance of this way of packing. A Frenchman arrived there, after a voyage of nearly four months, with several cases of flowering shrubs and trees from France, in the very best order. They had each a small ball of earth to the roots, which were afterwards wrapped in moss, and the plants were packed in the same material to prevent their being disturbed. I am anxious to correct any error, because a case of plants was sent to us by the London Horticultural Society, packed air-tight, and they all perished. In the warm latitudes these air-tight cases prevent evaporation, and this causes fermentation, especially if straw be used, as in the instance of a case I received, with the other alluded to above, containing peach, plum, gooseberry, and currant-trees, all of which died."

A Monster Cabbage.—This week a cabbage, of extraordinary dimensions, has been exhibited at the shop of Mr. Ridgway. This vegetable curiosity, the Daniel Lambert of the vegetable world, was produced on the allotment of James Wincup: it weighs 56 lbs ; its circumference is two yards and eleven inches; and one of the leaves measures two yards and nine inches round. It was grown from seed from Stockholm, and had been manured with guano mixed with refuse of hops.

Extraordinarily quick Growth of Wheat.—On the first instant, a field of wheat, which had been previously pickled with diluted sulphuric acid (containing 8 lbs. concentrated acid to the acre), was sown at Mr. Muspratt's farm in Newton, the land having previously been manured with soda waste (16 tons to the acre) In two days the wheat sprang half an inch, and has since progressed in equal proportion.

Animals injurious to Clover.—It is a remarkable phenomenon connected with hoar-frost, that the passage of a flock of sheep across a clover-field covered with it, particularly young spring clover, is certainly followed by the destruction of every leaf over which the animals have passed. Pigs and other animals are equally destructive.

Remedy for Disordered Bowels in Young Calves.—Mix 2 drms. rhubarb, 2 oz. castor oil, ½ drm. ginger with a little warm milk or gruel. The dose may be repeated in a day or two if required.

The Deodar.—This magnificent coniferous tree of the Himalays, usually attains the height of 150 feet, and has a trunk of thirty feet in circumference. The wood is very compact, resinous and fragrant, and capable of receiving so very high a polish that it has been found perfectly sound in the roofs of temples in India which could not have stood less than 200 years.

Australian Wheat.—We observe that this wheat has been introduced into England with great success. Can any of our readers inform us whether it has ever been tried in the United States; if so, where it can be had?

Guano.—This manure has been particularly tried in France the past season. It is found to attract the humidity of the air, and that no other manure is equal to it in dry sandy soils; it is particularly favorable to the growth of white clover; it destroys several of the vilest weeds of the field; and it kills wireworms and other insects.

Bones necessary to manure Pastures.—It is calculated that a milking cow is exhausted in its milk of 20 to 30 lbs. of the substance of dry bone each year, which is necessarily drawn from the soil on which she is pastured. Of course this must be returned in some shape, or the land would eventually become poor in the material of bones.

French Mode of Propagating Tulips.—Tulips are obtained in two different ways—by seeds and by offsets. It is ascertained by experience, that any given variety of tulip will not reproduce itself by its seeds; but, on the contrary, many will be originated, differing wholly from each other, thus giving amateurs an opportunity of raising new and improved sorts, which they term "breeders."

To accomplish this with a greater degree of certainty, they increase their chances of success by only sowing seed of first-rate varieties, and especially those the bottom of whose petal is of unsullied purity; as I find that "breeders" thus originated sooner develope their proper colors than those which are the produce of inferior sorts.

Editor's Table.

A System of Geography, for the use of Schools. Illustrated with more than fifty Cerographic Maps, and numerous wood-cut engravings. By Sidney E. Morse. Pp. 72, quarto, price 50 cents. Published by Harper & Brothers, 82 Cliff street, N. Y.—We have looked over this publication with much care and attention, knowing that Mr. Morse had devoted much of his time for several years past, to make this the best of school manuals; and in this work we unhesitatingly say he has eminently succeeded. For convenient reference; simplicity, and clearness of arrangement; condensation and variety of matter; accuracy of maps and general detail; beauty of illustration, and neatness of typography, we know of nothing equal to the above elementary work, or so deserving a general introduction into our schools; and, we may add, to the private library. The Messrs. Harpers have made themselves famous for their cheap publications; but how they contrive to issue such a work as this at the above low price, familiar as we are with the book-trade, we are at a loss to understand

A Treatise on the Forces which produce the Organization of Plants. With an Appendix, containing several memoirs on Capillary Attraction, Electricity, and the Chemical Action of Light. By John William Draper, M.D., Professor of Chemistry in the University of New York. Published by Harper & Brothers, No. 82 Cliff street, N. Y.; pp. 216, quarto, with numerous engravings—price $2 50.—It is eleven years since Dr. Draper turned his attention to the subject of the work now before us. In every plant, he contends, there are two prominent actions carried forward—the production of organic matter, and its distribution through the various parts of the vegetable system. It is to the consideration of these that his pages are chiefly devoted. In pursuing his subjects, he shows the action of the solar rays in producing the green color of plants, and effecting the decomposition of carbonic acid gas; unquestionably, as he contends, the most remarkable result in physiological and physical science. It is the transmutation of inorganic into organic matter, the yellow ray of light being the operative principle. But it would take us beyond the province of this periodical to pursue the subject before us. Dr. Draper's is a name long favorably known in connection with chemistry and vegetable physiology, and, so far as we are capable of judging, he has written a work of considerable originality, and of great ability; clear and perspicuous in its style, and no less interesting to the agriculturist than the man of general science. The volume is very handsomely got up, and is alike creditable to the author and publishers. We trust that the gentlemen interested in it, will be encouraged by a discerning public to give others of a like character.

Cottage Residences, Gardens, and Grounds, by *A. J. Downing*. Landscape Gardening and Rural Architecture, by the same.

New editions of the above works, greatly improved, we understand, have been published by Wiley & Putnam, of this city, the first editions having already been exhausted. Mr. Downing has two other works also in press, which will appear early in the spring. One is Farm Architecture, following the volume of Cottage Residences; the other, The Fruits and Fruit Trees of America. We are glad to hear of this and predict for these works a large sale.

Guano Manure.—We desire to call attention to the advertisement of Mr. Bartlett. This kept for sale by him is the Peruvian, which is much superior to the African. Samples may be seen at our office, and we will execute orders for any of our friends with great pleasure. This manure is very superior for light sandy lands, and on account of the small quantity requisite to produce a good crop, is, at present prices, one of the cheapest which can be purchased. It is especially desirable for gardens and conservatories, having no foul matter in it, and is so lightly and easily handled and applied. For its use and application we would refer to our last volume, where full information will be found regarding the same. It is a mistaken notion that Guano is not *lasting* on land; the genuine Peruvian, after a trial of three years in England, has been found to be more so than the best farm-yard manure.

Sheep on the Prairies.—It is estimated that about 47,000 sheep have emigrated to the west the past season.

Necessity of Manure for the Plantation.—A correspondent of the Carolina Planter says, by improvident management, we have got to that point in this State [South Carolina], that no planter can make a living—much less accumulate an income, without constantly, systematically, and perseveringly collecting and distributing manures upon his lands. Almost everybody is now satisfied of this, and some few are trying to act upon it; though no one that I am acquainted with does a tenth part of what he ought to do, and might do.

Sore Backs or Galls on Horses.—Rub white lead in sweet oil until a good paint is made, and apply a coating of this to the injured place. Milk will do where no oil is to be had. It is one of the most effective applications. Some for the same difficulty use a solution of vitriol in water; but, in most cases, the white lead is preferable.—*Far. Cabinet.*

We will add, that almost any kind of oil answers as well as sweet oil, to mix with the white lead. Sugar of lead is also very good, and perhaps acts milder than white lead.

Large Crops of Corn.—Mr. Wadsworth, of Durham, Connecticut, raised from a quarter of an acre the past season, at the rate of 151 bushels and 18 quarts of shelled corn per acre. It was of the improved Dutton variety, and was planted about the first of May, in hills three feet apart, on rich sward ground, manured with 30 loads of common yard manure to the acre. Mr. W. had four acres nearly as good, all of which is attested by the Committee of the Middlesex Agricultural Society.

Hatch's Machine for sowing Seed and Plaster.—Can any one inform us where we can see this machine, how it operates, and its price? We have an inquiry for one.

Harrows.—Who makes these in the greatest perfection? We have several inquiries for these at the south. Agricultural implement makers would do well to keep us advised of all good instruments, and furnish us promptly with cuts and descriptions of the same.

Large ear of Corn.—An ear of corn was raised on the farm of Mr. Abraham Null, on Monocacy, this season, having on it one thousand eight hundred and thirty-eight grains—measuring one pint and a half of shelled corn.—*West. Car.*

Statistics of Fruit.—An article on this subject was contributed by Mr. Higginson, of Newburgh, to our last volume; whereupon it partially went the rounds of the press. Some paper recently published it, and gave credit to the *Southern*, instead of the American Agriculturist; and now it is travelling with an increased circulation, the rounds of the press again. Verily, some folks are *amazingly sharp*. But it verifies the old adage, that "stolen fruit is always the sweetest."

To make dry Trees grow.—In conversation in our office with a gentleman a few days since, he informed us, if trees that had been some time dug and had become dry, were entirely buried in the earth for twenty-four hours before being set out, they would often grow when they had appeared to be entirely dead.

The philosophy of the matter appears to be this: the bark and outer vessels of the tree, in drying, are contracted; and though the vessels of the roots, upon being again buried, distend and perform their functions, there is not force enough to carry the sap far up the trunk. By burying the whole tree in moist earth, the cells of the trunk and limbs are expanded in like manner with the roots, so that when again set out, the sap is speedily carried through the whole tree. In this region, where trees are often carried to so great a distance, this fact, if true, is particularly valuable, and should be remembered.—*Prairie Farmer.*

To protect Hens from Vermin.—A gentleman from Hanover requests us to state the fact that *pennyroyal*, woven into their nests, will perfectly and certainly protect hens from the annoyance of vermin. He generally makes the nest entirely of this strong-scented herb.—*Southern Planter.*

Extraordinary Wheat.—We are indebted to Myron H. Adams, of East Bloomfield, for a fine specimen of white flint wheat, raised by him the past summer. We are informed by Mr. A. that 177¼ lbs. of this wheat produced 144⅓ lbs. of flour, and 32 lbs. of bran and middlings—averaging 48 lbs. of flour to the bushels. If any of the new varieties of wheat introduced among our farmers can show a greater yield of flour than the white flint, we should like to have an account thereof. Mr. A. has two or three hundred bushels of said wheat for sale for seed.—*Ontario Repository.*

Pennsylvania Wool.—Some 10,000 lbs. of Pennsylvania wool have been shipped for Liverpool from Philadelphia. The wool was of the most delicate texture.

Value of the Products of Ohio.—During the last year, as near as they can be ascertained from the data within reach, they are as follows:

Agricultural	$45,362,400
Manufactures	17,505,600
Commerce	9,660,379
Mineral	2,931,218
Forest and lumber	1,013,063
Fisheries	10,525
Total	$76,483,185

The value of the products of Ohio, exported from the State during the past year, have been about $25,000,000.

Egyptian Cotton.—Mr. White, of Louisiana, has on his plantation a cotton stalk, from Egytian seed, about fifteen feet in height. Mr. White obtained twenty seeds, gathered from the garden of the Pacha. He thinks, if carefully managed, it would probably yield from 2,500 to 3,000 lbs. of seed cotton to the acre.

English Duty on Tobacco.—Mr. Clay mentions the startling fact, that on the single article of American tobacco, England levies annually an amount of revenue equal to the whole amount of duties levied annually by the United States upon all the articles of import from all the foreign nations of the world, including England herself.

Peaches in Illinois.—The idea has become prevalent that our climate is too cold for peaches. The experiment, however, has been made the last year, and the result is, that with proper care, as good fruit can be grown here as in more southern climates. A number of persons have had bearing trees this year. One gentleman informs us that he had one hundred trees bearing excellent fruit. He states that by spreading straw about the roots in the spring, before the frost comes out of the ground, all damage to the trees will be prevented.—*Galena Gaz. & Ad.*

Mastodon Cotton.—We were yesterday shown some samples of cotton by the commercial house of Hoops & Marye, which were indeed remarkable. They were all from the plantation of Mr. Abbey, on the Yazoo. Some had already been ginned, and some was in the boll. It is a new description of cotton, never before grown in the United States, and but twenty bales have been picked this year. Mr. Abbey has christened it the Mastodon cotton, considering it much finer than that grown from the common Mexican seed. The seed, he states, was procured in the city of Mexico, four years ago. It was not known or grown there to any extent, and could only be had at one bit a piece, which was the price actually paid for it by a gentleman who brought a few from Mexico in his pocket-book to the United States. Mr. Abbey intends planting no other henceforth, thinking that he can raise from 50 to 100 per cent. more from this than the usual seed.—*N. O. Picayune.*

Slaughtering Sheep for the Tallow and Pelts.—They are killing sheep by the thousands at the west, and trying up all of the carcase, except the hind quarters, into tallow. The pelts are shipped to England, and being admitted duty free, pay a fair profit.

To the Maine Farmer.—We shall be greatly obliged by the personal appearance forthwith, of the beautiful concentration of the royal blood of *all* the Penobscots encased in the promised wigwam. It can at least be said, there is no *degeneracy* of stock here, that is, so far as *enbonpoint* goes. We have read that sheep, through the influence of climate, were not the only animals that bred fat rumps at the Cape of Good Hope. The specimen figure so gorgeously portrayed, has undoubtedly a *strong cross from that quarter!* Cannot a triplicate proof be spared? We want a few for distribution among our friends.

ACKNOWLEDGMENTS.—To J. P. Fairbanks, Esq., of St. Johnsbury, Vermont, for the Caledonian, containing the proceedings of the Caledonia county Agricultural Society; to C. N. Bement, Esq., of Albany, for his Address before the Housatonic Agricultural Society, Mass.; to Hon. J. S. Skinner, for the Transactions of Newcastle county, Delaware, embracing his eloquent Address upon the occasion; also, to the same, for a pamphlet on Guano; to Ebenezer Mack, Esq., for his Address before the Tompkins county Agricultural and Horticultural Society; Mr. T. Bridgeman, for his Report as Chairman of the Committee on Horticulture, at the late Fair of the American Institute; Edwin Bartlett, Esq., for a valuable pamphlet of 95 pages, on Guano, its Nature, Properties, and Results; to Messrs. Wm. R. Prince and Co., of Flushing, Long Island, for their splendid new Catalogue of over 100 pages, descriptive of Fruit and Ornamental Trees, &c., &c.; Albert G. Carl, Esq., for Transactions of the Queens county Agricultural Society for 1843, and the Address of the Hon. Wm. T. McCoun. It would afford us great pleasure to give a further notice of these valuable productions, but want of time forbids our doing so.

INQUIRY.—Can any one inform us, without taxing us with postage, where Guinea, or African Geese, pure breed, and the small China Geese, can be had? Also, Bolton Grey, Ostrich, and White Poland Fowls; Canvass-back Ducks; Wild Turkeys; Lop-eared Rabbits; and English Fowls. We have constant orders for choice poultry, and shall be pleased to be informed of everything either rare or valuable. Always state prices per pair, &c.

TO CORRESPONDENTS.—In addition to those inserted in this number, we have received communications from A. M. Burton, John P. Norton, Thomas Affleck, R. L. Allen, G., Thomas Spaulding, J. H. Cowper, S. C. Charles, Jared P. Kirtland, Sullivan Bates, J. M. K., Querist, K., Ambrose Stevens, A. R. D., Solon Robinson, and T. S. P. We are greatly indebted to our correspondents for their excellent communications, all of which shall appear in due course.

REVIEW OF THE MARKET.

PRICES CURRENT IN NEW YORK, DECEMBER 24, 1844.

ASHES, Pots,	per 100 lbs.	$3 75	to	$4 00
Pearls,	do.	4 06	"	4 12
BALE ROPE,	lb.	6	"	9
BARK, Quercitron,	ton,	24 00	"	25 00
BEANS, White,	bush.	1 25	"	1 75
BEESWAX, Am. Yellow,	lb.	28	"	31
BOLT ROPE,	do.	12	"	13
BONES, ground,	bush.	35	"	40
BRISTLES, American,	lb.	25	"	65
BUTTER, Table,	do.	15	"	18
Shipping,	do.	8	"	12
CANDLES, Mould, Tallow,	do.	9	"	12
Sperm,	do.	28	"	38
Stearine,	do.	20	"	25
CHEESE,	do.	3	"	7
COAL, Anthracite,	2000 lbs.	5 00	"	6 00
CORDAGE, American,	lb.	11	"	12
COTTON,	do.	4	"	8
COTTON BAGGING, Amer. hemp,	yard,	16	"	18
American Flax,	do.	16	"	17
FEATHERS,	lb.	27	"	31
FLAX, American,	do.	8	"	8
FLOUR, Northern and Western,	bbl.	4 50	"	4 88
Fancy,	do.	5 00	"	5 38
Southern,	do.	4 50	"	4 88
Richmond City Mills,	do.	5 50	"	5 75
Rye,	do.	3 25	"	3 50
GRAIN—Wheat, Western,	bush.	95	"	1 05
Southern,	do.	95	"	1 00
Rye,	do.	65	"	67
Corn, Northern,	do.	52	"	54
Southern,	do.	50	"	52
Barley,	do.	58	"	60
Oats, Northern,	do.	32	"	34
Southern,	do.	29	"	31
GUANO,	cwt.	3 00	"	3 50
HAY,	100 lbs.	40	"	45
HIDES, Dry Southern,	lb.	9	"	11
HEMP, Russia, clean,	ton,	170 00	"	175 00
American, water-rotted,	do.	105 00	"	165 00
American, dew-rotted,	do.	75 00	"	125 00
HOPS,	lb.	13	"	15
HORNS,	100.	1 25	"	5 00
LEAD,	lb.	3½	"	4
Sheet and bar,	do.	4	"	4½
MEAL, Corn,	bbl.	2 44	"	2 75
Corn,	hhd.	12 00	"	12 25
MOLASSES, New Orleans,	gal.	27	"	30
MUSTARD, American,	lb.	16	"	31
NAVAL STORES—Tar,	bbl.	1 81	"	1 94
Pitch,	do.	88	"	1 00
Rosin,	do.	58	"	75
Turpentine,	do.	2 50	"	2 88
Spirits Turpentine, Southern,	gal.	35	"	38
OIL, Linseed, American,	do.	68	"	70
Castor,	do.	65	"	70
Lard,	do.	55	"	65
OIL CAKE,	100 lbs.	1 00	"	——
PEAS, Field,	bush.	1 25	"	——
PLASTER OF PARIS,	ton,	2 62	"	2 75
Ground, in bbls.,	of 350 lbs.	1 12	"	1 25
PROVISIONS—Beef, Mess,	bbl.	5 00	"	7 00
Prime,	do.	3 00	"	5 00
Smoked,	lb.	5	"	7
Rounds, in pickle,	do.	3	"	5
Pork, Mess,	bbl.	8 25	"	10 00
Prime,	do.	6 50	"	8 12
Lard,	lb.	5½	"	6½
Bacon sides, Smoked,	do.	3½	"	4½
In pickle,	do.	3	"	4
Hams, Smoked,	do.	5	"	10
Pickled,	do.	4	"	7
Shoulders, Smoked,	do.	4	"	6
Pickled,	do.	3	"	4
RICE,	100 lbs.	2 88	"	3 38
SALT,	sack,	1 38	"	1 45
Common,	bush.	23	"	30
SEEDS—Clover,	lb.	6½	"	8½
Timothy,	7 bush.	10 00	"	12 00
Flax, rough,	do.	10 75	"	11 00
clean,	do.	12 00	"	12 50
SODA, Ash, cont'g 80 per cent. soda,	lb.	3	"	3½
Sulphate Soda, ground,	do.	1	"	—
SUGAR, New Orleans,	do.	4	"	7
SUMAC, American,	ton,	25 00	"	27 50
TALLOW,	lb.	6½	"	8
TOBACCO,	do.	2½	"	6
WHISKEY, American,	gal.	24	"	25
WOOL, Saxony,	lb.	45	"	66
Merino,	do.	40	"	50
Half-blood,	do.	30	"	35
Common,	do.	25	"	30

NEW YORK CATTLE MARKET—Dec. 23.

At market 1150 Beef Cattle (all from the North and East), 80 Cows and Calves, and 2500 Sheep and Lambs.

BEEF CATTLE are a little cheaper—ordinary $4 25 a 4 50; prime $5 25 a 50, and some choice $5 75.

COWS AND CALVES—same as last week, $14 a 30.

SHEEP AND LAMBS are a little cheaper; we quote Lambs 87½ a 2 37½, and Sheep 1 37½ a $5.

HAY—Brisk demand at 62½ a 75c cwt. for loose.

REMARKS.—*Ashes* depressed. *Cotton* the same. Export from the United States since 1st September last, 377,768 bales; same time last year, 209,580; same time year before, 338,669. *Flour*, Wheat and Rye, steady; Buckwheat dull. *Grain*, Wheat, Rye, and Corn, in good demand; Oats slow of sale. *Hay* in fair request. *Hemp* dull. *Molasses* little doing. *Naval Stores* quiet. *Provisions*, Pork very firm. Hogs have advanced in Cincinnati, and ranged on the 12th ult. from $2 75 to $3 12½; up to this date 135,000 had been killed, but it was thought the whole number of the season would fall much short of that of last year; Lard is very brisk, and large quantities going to England; the same with Cheese when found of a proper quality; Beef is dull. *Rice* of prime quality much wanted. *Seeds* in fair request. *Sugar* quiet. Recent letters from New Orleans represent the late crop as likely to be 160,000 hhds., notwithstanding the loss by frosts of full 15,000 hhds. *Tobacco* without interest. The Virginia crop is said to be short, and will not exceed 40,000 hhds. *Wool* not much doing.

Money continues in good demand, the banks getting 6 per cent, capitalists 5 to 5½. On account of the low price of Cotton, the amount of sterling bills offering at this season is not as great as usual, so that specie continues to be remitted to Europe in moderate sums. Export of gold and silver from 1st of January last up to November 30th, $5,632,102. Import, $1,072,654. Export more than import, $4,559,448.

Stocks of a good kind are firm and rising.

The weather here is mild and delightful. At the South the same, and we notice that they are still in the enjoyment of green peas and corn from their gardens.

FASTOLFF RASPBERRY.

The subscriber has much pleasure in stating, that he can execute orders for canes of the above highly valuable and much esteemed Raspberry, unequalled for the extraordinary size of its fruit, and richness of flavor. In England it is considered superior to all other varieties, and at various horticultural exhibitions, has carried off the prizes. Dr. Lindley's opinion of it is thus expressed:—"We find it merits all that has been stated in favor of its excellence. The fruit is very large, obtusely conical, and of rich flavor. The plants bear abundantly, and in long succession."

It is scarcely necessary to recommend it more fully, or with greater confidence to the notice of the public. It continues in high perfection throughout the autumnal months, and requires no other treatment than that ordinarily bestowed on the older varieties.

Fine canes are ready for delivery, and can be sent with safety to any part of the United States, upon the following terms:

Packages containing 25 canes, - - - - $8 00
Do do 12 do, - - - - - - 5 00
Single canes, - - - - - - - - - 50

These plants are *warranted the true Fastolff Raspberry;* and as the stock is limited, early orders only can secure a few plants.

Orders addressed to the undersigned will receive attention—and from unknown applicants, a remittance, or satisfactory reference is requested. M. J. HOWARD.

Horticultural Gardens, Flushing, L. I.

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OF
PARSONS & CO.,
FLUSHING, L. I., NEAR NEW YORK CITY.

This well known Garden and Nursery now occupies about 40 acres, and in its Fruit and Ornamental Departments, will be found a complete assortment of everything usually cultivated in this country, together with many new varieties of Forest Trees, Fruits, Shrubs, and Flowers, hitherto unknown here, and selected by one of the proprietors during a late visit to Europe.

Descriptive Catalogues can be had on application, *post paid*, to themselves; Parsons, Lawrence & Co., 129 Pearl street; or the editor of the American Agriculturist, 205 Broadway, New York.

PARSONS & CO.,
Flushing, Long Island.

IMPERIAL OATS.

The subscriber has for sale a few barrels of the above superior oats,—price $3 50 per barrel, delivered on board vessel. If two or more barrels are taken, a deduction will be made of ten per cent. The imperial oats are considered the best kind now cultivated, having less husk about them than any other known. Their weight is from 40 to 44 lbs. per bushel.

A. B. ALLEN, 205 Broadway, N Y.

AGENTS FOR THE AMERICAN AGRICULTURIST.

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PREMIUM EAGLE, SUBSOIL, AND OTHER PLOWS.

The subscriber having been appointed agent in this city for the sale of the celebrated Premium Plows, made by Ruggles, Nourse, & Mason, of Worcester, Massachusetts, now offers them at the manufacturers' home prices. They are calculated alike for the Northern Farmer and Southern Planter, and embrace the following varieties:

PLOWS.	Description.	Plain.	W. or C.	W. & C.	Moulds.	Lands.	Points.
Cotton or Rice Plow,	6 inch.	$3 50			$1 13	$0 25	$0 25
do. do. do.,	7 do.	4 00			1 17	33	25
Furrowing do.,	Double Mould,	4 00			1 50		33
Garden do.,	No. A 1,	4 00			1 25	50	33
Light Horse do.,	No. A 2,	5 00			1 50	67	42
Seed do.,	No. A 3,	7 00	8 25	9 50	2 00	75	50
Horse do.,	No. 1 B,	6 50	7 75	9 00	1 75	75	50
Stubble do.,	No. 2 B,	7 50	8 75	10 00	2 00	92	50
Two Horse do.,	Eagle, No. 1,	8 00	9 50	11 00	2 25	92	58
Light Break-up do.,	" No. 2,	8 50	10 00	11 50	2 50	1 00	58
do. do. do.,	" " Coul.	10 00	11 50	13 00	2 50	1 00	63
Heavy Break-up do.,	" No. 3, Imp.	9 50	11 00	12 50	3 00	1 25	67
do. do. do.,	" No. 4, "	10 00	11 50	13 00	3 00	1 25	67
do. do. do.,	Sward B,	10 00	11 50	13 00	3 00	1 25	67
do. do. do.,	" D, Coulter,	12 00	13 00	15 00	3 25	1 25	63
Breaking-up do.,	" C,	9 00	10 50	12 00	2 75	1 13	67
Light Horse do.,	No. 0, Side Hill,	5 00			1 25	75	33
Two Horse do.,	No. A 1, S. Hill,	9 00	10 50	12 00	2 25	2 00	67
Three Horse do.,	No. A 2, S. Hill,	11 00	12 50	14 00	2 75	2 25	75
Road do.,	No. A 3, S. Hill,	13 00	14 50		3 00	2 50	83
Large Road do.,	No. A 4, S. Hill,	15 00	16 50		3 50	2 75	88
Rice do.,	Trenching Plow,	6 50					50
One Horse do.,	Subsoil, No. 0,	6 00					50
Two Horse do.,	" No. 1,	8 00	with Draft Rod,			10 00	50
Heavy do.,	" No. 2,		do. do.,			15 00	75

"Plain," at the top of the third column, means the plow without wheel or coulter. "W." in the fourth and fifth columns, means wheel. "C." coulter or cutter. "Moulds and Lands," mould-board or land-side. "Points," are the extreme ends of the plowshare attached with bolts. These can be instantly replaced by new ones when worn out. The wheel adds greatly to the ease of draught, and should always be ordered for the larger plows, say from No. A 3, down, whether for the south or the north. Coulters are only necessary to cut through the sod, and render it easy to turn over while breaking up green sward land. They are much liked at the south for cutting through crab-grass sod. Extra moulds and lands are not often wanted. Two extra points should always accompany each plow.

The great number of premiums which these plows have obtained at the most important plowing-matches, and the universal satisfaction they have given wherever introduced, render it unnecessary to particularise their merits. They are made of the best materials, are highly finished, and combine light weight and easy draught, with great strength and durability. They are especially liked at the South, and though the first price is higher than the common kinds, they do their work in so superior a manner, and with a draught so much easier for the team, that they are universally preferred where known. It has been proved at the South, that a single pair of good mules attached to the Eagle plow, No. 1, in any reasonably friable soil, will easily turn a furrow of 6 inches deep by 12 inches wide. In addition to the above good qualities, being made of the best materials and highly finished, these plows last much longer than the common kind; they are consequently much the cheapest in the end.

A. B. ALLEN, 205 Broadway, N. Y.

AN EGG-HATCHER FOR SALE.

An Eccaleobion, or Egg-hatcher, about four feet six inches long, three feet eight inches high, and three feet six inches wide, and capable of hatching one thousand chickens per month, is offered for sale by a gentleman in this city, who has no further use for it. It has been used only a short time, and is as good as new. The price is $100, which is $25 less than it cost. For a full description of one of these machines, see Vol. III., p. 298.

Apply, post-paid, to the Editor of this paper.

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The undersigned has received by the George and Henry, direct from the Chincha Islands, on the coast of Peru, a cargo of this valuable manure. It was shipped by and for account of the Peruvian Guano Company, and is warranted pure, and of the best quality. For sale in bags, in small quantities, at Thompson's stores, Brooklyn, or in larger parcels by

EDWIN BARTLETT, 42 South street.

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AMERICAN AGRICULTURIST.

Agriculture is the most healthful, the most useful, and the most noble employment of man.—Washington

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A. B. Allen, Editor. Saxton & Miles, Publishers, 205 Broadway.

ROOT-GRAFTING.

After reading this article, every farmer can easily provide himself with an orchard of the choicest fruit, and without other cost than a little of his own labor; for he has only to procure a few apple seeds and sow them, and then do his grafting in the winter evenings, when there is scarce anything else to occupy his attention.

Root-grafting is now more generally practised than tree-grafting, for the following reasons. 1. It is stronger than budding, and the scions have as straight and handsome a growth of trunk as seedlings. 2. A tree may be brought to bear from one to two years sooner by this method. 3. It can be done in the winter as well as the spring, a season when the nurserymen are least employed. 4. Three times the number of trees can be thus obtained from the same stock.

Preparing the Seed.—Take apple-pommace at the cider mill, and transport it to any place near where it is desired to plant the seeds, and spread it on the ground. Then turn it over with a rake or pitchfork, and gather the principal part of the straw from it, leaving the pommace in beds not more than 1½ to 2 feet thick. If left thicker, or much straw remains in it, the pommace heaps are liable to ferment and destroy the vitality of the seeds. Leave it in this state all winter, without covering. If the seed is to be obtained from any great distance, it must be washed clean, thoroughly dried, and then packed in a box for transportation.

Planting.—The soil should be of reasonable fertility, and free from springs or standing water; indeed, it is better to have it too dry than too wet. As soon as the frost is out of the ground, plow, harrow, and prepare the land where the apple seeds are to be planted, the same as for a good crop of corn. Now stretch a garden cord any length required, take a hoe in hand, as you walk forward, let it be drawn behind you, straight with the line, and about one inch deep in the ground. This makes a drill 6 inches wide, and deep enough for planting the seeds. Into this scatter the pommace, an inch thick, and then cover it over with the hoe, about an inch deep. The drills should be from 3 to 4 feet apart, according as one has more or less ground to spare. The latter distance is best, because it gives more room between the rows to work the plow or cultivator, to stir the earth, and keep the weeds down. If the trees come up thicker in the rows than wheat or rye usually does after sowing, they should be thinned out by pulling up whatever is necessary, and thrown away, as they will hardly repay the trouble of transplanting.

After Culture.—This may be the same as with a crop of corn. It is very important to stir the earth, and keep it loose, for the better spreading of the apple tree roots; also to check the weeds, otherwise they will choke the growth of the trees, and frequently overshadow and kill them.

Diseases and Insects.—Apple trees the first and second years, are very subject to mildew, the attacks of lice, and a small green fly, which often do them great injury, by checking their growth. For the destruction of the first, we recommend strewing lime and charcoal, mixed in equal quantities, along each side of the rows of the seedlings; and for the second, sprinkle snuff all over the leaves, or a mixture of sulphur, soot, and fish oil.

If in a good soil, and well taken care of, the trees will grow from 2 to 3 feet high the first season. Treat them the second year in the same way as the first.

Taking up and Securing the Trees.—If the trees have had a good growth the first season, they will be large enough the following winter for grafting; if not, they must remain till the second fall. To prepare them for grafting they should be taken up before the ground freezes. To do this with facility, run a plow down each side of the rows turning away the soil from them, and then pull out the trees carefully by hand; or let two men go down on opposite sides of the row, and thrust their spades into the ground near it, loosing the soil and somewhat lifting it up, while a third person follows and pulls out the trees. After this, tie the trees together in moderate sized bundles, and put them into a glass-lighted cellar, or any place where they will be secure from frost or drying up of the roots. The cellar-bottom must be of a dry soil. Here dig trenches and place the roots of the trees in these, in bundles, and cover up till wanted. Or, if the roots can be kept moist by wrapping them in moss or any other way, it will answer, though covering them with earth is the safest and best method.

Grafting.—As one has time during the winter, these bundles of trees may be taken from the trenches and grafted. From one to four roots may be cut from each tree, dependent entirely upon its growth, and still leave enough for the support of the stock taken up. This should be closely trimmed and cut off about two feet from the root, to be set out the following spring, to be budded in August. Now cut the grafts as wanted, and use ribands made in the following manner, for bandages. Take common cotton cloth and cut it crosswise into pieces six inches wide. On one side of these pieces spread grafting-wax, composed of 1 lb. beeswax, 1 lb. rosin, and 2 lbs tallow. Then cut these pieces parallel with their width into ribands half an inch wide.

The most simple method of grafting, and as sure as any, when the roots are so small, is the splice or whip method; for a full explanation of which, and cuts to illustrate it, see our last volume, page 175. Some adopt cleft-grafting, and do not use wax or binding; but as the graft by this method is very apt to get displaced, we cannot recommend it.

After Management.—Take the trees after they are grafted, and put them into boxes of any convenient size six inches deep, and fill the same up with moist sand or light loam all around the roots, taking care to leave the top of the scion out a little above the earth. These boxes should now be taken to the green-house, and set in a shady place out of the way of the sun. Here let them remain till the graft gets well united to the root, which will take place in a week or fortnight, according to circumstances. After being united, place the boxes in the cellar, and let them remain there till ready to set out in the spring. During this time keep the earth in the boxes moist. By giving the pieces an opportunity to unite, immediately after grafting, if it comes a dry time in the spring subsequent to setting them out, they are not so liable to die, and their growth is quicker and better. As few farmers have a green-house to start the grafts in, they may place the boxes containing them in a warm room during the day, and in the cellar during the night. Those who are not too busy in the spring can do their root-grafting as soon as the frost is out of the ground, and set the trees out in rows as fast as done.

Transplanting.—Early in the spring transplant the grafted trees from the boxes into rows about 4 feet apart, and one foot apart in each row. Stir the earth occasionally, keep the weeds down between the rows, and let the trees grow till they are wanted to plant in an orchard. By this method, apples have been gathered three years after first saving the seed; and if properly attended to, one may always calculate on a little fruit the sixth or seventh year.

A TRIP ON LONG ISLAND.—No 2.

Farm of Mr. Mills.—This farm comprises 1200 acres, 500 of which are under cultivation, and 700 in woodland or "sprouts." It lies mostly on the elevated sections of Smithtown, a short distance from the Sound, and at a height of 100 to 150 feet above tide water. Like much of Long Island, it is nearly destitute of springs. To obtain water for their stock, the farmers here are often obliged to dig wells, and form rain-water ponds in the same manner as they make them in some parts of Kentucky, and other sections of the west, by scooping out the low places in the fields, and then puddling them with clay. The soil here is of a fair quality, and very free from stone, making it easy to cultivate, an advantage which is not as much appreciated by those occupying tillage land as it should be.

Rotation of crops.—Mr. Mills' course of cropping, is to break up the sward ground and put it in corn and potatoes, manuring in the hill with a compost from the hog-pen and horse manure heap, or about a gill of poudrette He prefers the poudrette, as it starts the corn quickly and matures it sooner, thus placing it out of the reach of early frosts in the fall. These crops are followed the second year with oats, seeded down with clover, at the rate of eight quarts to the acre, and a top-dressing of from 10 to 15 bushels of bones or poudrette. After the oats are taken off, the clover is pastured. It stands well the first winter, the roots being small; but the second winter, when full grown, in the heavier loams, it gets hove out. The third course, therefore, being the year after the clover is sown, is to pasture it till the last of June, then let it grow till the last of July or fore part of August. By this time, in ordinary seasons, the clover will have attained as good a height as can well be turned under with the plow, which is then done for the wheat crop. A light coat of manure from the barn-yard follows, and is then harrowed in. After this, 80 to 100 bushels of leached ashes are sown upon an acre, and then, from 15th to 30th September, the seed wheat with four quarts of timothy, and the following spring, early in March or April, eight quarts of clover seed per acre. The fourth course is thus a good crop of wheat. The land is then mown from three to four years, when the grass gets pretty well run out, and the field is broken up again for corn and potatoes as at first, making it a seven or eight years course. Sometimes Mr. Mills pastures instead of mows; the grass will then last longer. He is a great advocate for ashes, and says if 200 bushels are put on to an acre their good effects will be felt for ten years.

By properly top-dressing the meadows and pastures, and not mowing and feeding too close, we are confident, even on the light soils of Long Island, they may be kept in good grass for an indefinite length of time, and thus save the unprofitable necessity of breaking up the sod for crops, unless particularly desired. The farmers there seemed rather incredulous at these assertions; yet, nevertheless, we can give them proofs enough that this may be easily accomplished, and even show them several tracts on the light soil of their own island that have lain in grass from 10 tc

50 years, and are as good now as ever, and yield an abundance of pasture.

Stock.—In respect to stock, Mr. Mills is one of the most spirited men on Long Island. He keeps over 200 of the country Merinos for their wool, and a pretty flock each of Southdowns and Leicesters. The swine are pure Berkshire, and a very good cross with the large English white hog. The cows are Durham, derived principally from the stock of Charles Henry Hall and the late Peter Remsen. His young bull Hudson is a capital handler, and a very fine animal all over, and of the true medium size. He was bred by J. F. Sheafe, Esq., of High Cliff, Dutchess County, and took the second premium in his class at the late State Agricultural show at Poughkeepsie. Though his pastures are light, Mr. Mills finds no difficulty in keeping this stock in good condition. The truth is, if Durham cattle of *fine points* and *medium size* are chosen, they will do well even on short feed. The young horses are a good lot, and very well bred. We particularly admired a fine grey filly of the Engineer stock.

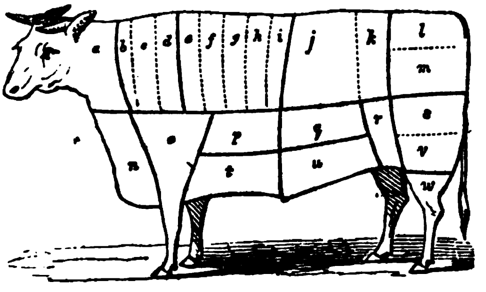
Buildings.—The barns, stables, and sheds, are ample and commodious, with proper divisions in the yards. The cider mill is the most complete we have seen. We wish we had a sketch of it for our paper. It stands upon a side hill, the second story or loft on a level with the top of the ground. On to the floor of this the apples are tipped up from the carts, and then shoved along to a hole in the floor, opening into the hopper. The fixtures for grinding are on the coffee-mill principle, we believe, and are in the ground story below. The pommace comes out along side of the press, and is easily laid up for pressing. As fast as the barrels are filled, they can be rolled out on to carts on the lower side, and taken away. Much labor is saved in handling the apples, pommace, and cider, by this arrangement. The cider made here is not for *drinking* but for *vinegar*. Mr. M. has large orchards of good varieties of fruit, the most of which is fed to his stock. The house is of handsome architecture, roomy and very convenient. An ample lawn spreads out in front, and a large well stocked garden is in the rear. Indeed, the whole concern is an excellent specimen of the enlightened, substantial, Long Island farmer.

We next visited the estate of the Hon. Selah B. Strong, at Setauket, a very rich tract of land lying on the Sound, and forming a peninsula of about 500 acres. It is stocked almost entirely with sheep. Of this we shall give a full account hereafter. His mansion, recently erected, is, to our fancy, a gem of architecture, and we are promised a plan of it for some future number of this periodical. Thence we crossed over to Mastick, on the south side of the island, to the large estate of 3,300 acres, of Col. Floyd. This is now managed by his son, Mr. John G. Floyd, who has very wisely, in our opinion, retired from politics and taken to agriculture. He has gone into this business in an enlightened manner, and tried a great variety of experiments; but as they are not yet completed, it would be premature to speak of them. This property is eligibly situated and can make any amount of sea manures. Mr. F. joins with us in one thing, and that is most heartily hating fences. His fields are large, usually from 40 to 100 acres. We next found ourselves among the Tangiers. Verily, a few of these gentlemen hold small principalities, so far as breadth of land is concerned. Some of their estates contain from 3,000 to 6,000 acres. Much of this land, however, is considered very indifferent; yet the time will arrive when it will all, doubtless, be under a high state of cultivation. But the system of managing it must be changed. It is preposterous to pay out high prices for manure from this city, at the present value of products; few will ever see their money back for it. Subsoil-plowing, clover, plaster, and sheep, would be our method of renovation. Perhaps guano manure might answer; at all events, it is worth trying on a small scale, since the best of Peruvian is now offered here so cheap. Three cwt. per acre, costing $9, if properly applied, will work wonders with a corn crop.

There are large tracts of land: 20,000 to 30,000 acres, it is said, in the towns of Hempstead and Huntington alone—which are still in common, and of precious little benefit to any one. The towns ought to sell this land, and let it come under cultivation. Left as it now is, it presents a dreary waste. If gentlemen thought it worth their while to listen to us, we could propose an excellent plan for its cultivation, and one, we are persuaded, that would amply remunerate the occupiers. We have seen much worse land than this made to pay a fair profit. As now held and occupied, it is almost valueless. Sold out, and the proceeds put into a fund for the education of the children in the towns owning this property, it would be much more beneficial to the people.

THE OX AS CUT UP FOR FRESH MEAT IN AMERICA.

In our last number, we gave a cut illustrating the ox as cut up for salting in London, and full directions for packing beef for the English market. It is a very important article, and not only of great value to those engaged in the provision trade, but to every farmer who either breeds or feeds cattle. We now give another cut nearly as important to the farmer, illustrating the manner in which an ox is cut up for fresh meat by the best butchers in America. The prices are those asked in the New York market January, 1845.



The Ox as cut up for Fresh Meat.—Fig. 5.

a. Neck for corning or mince meat; price 2 to 3 cents per lb.

b. c d. Chuck rib for roasting pieces or steaks. It is sometimes left in one whole piece for large roasts for hotels or public dinners; and sometimes cut in two pieces only. If the animal be small, it may for moderate roasting cuts be divided into two only; price 7 cents per lb. for roasts, and 8 cents for steaks.

e. f. g. h. i. Middle or crop rib roasting pieces, also called prime ribs. They are sometimes left in two or three pieces only for the same reason as the chuck rib; price 9 cents per lb.

j. Sirloin or tenderloin steaks. It is cut into thin slices for steaks as wanted. Steaks should not be cut to the required size until they are to be put on the gridiron, as they thus lose their juice; price 9 to 10 cents per lb.

k. Sirloin roasting piece; price 9 cts. per lb

l. m. Rump steaks. The steaks from *l*, are nearly (perhaps quite) as good as those of the sirloin; these pieces are also corned. If the steaks be cut from *l*, only, they are worth 7 to 8 cts.; if from *l* and *m* together, 6 cts. per lb.

n. t. Brisket for corning, and the finest corning beef in the animal, when there is a full, deep brisket. These pieces are subdivided before corning; price 5 cts. per lb.

o. Shoulder or arm for soup and mince meat; also corned; price 2 to 3 cts. per lb. It is sold ordinarily by the piece.

p. Cross piece for roasting and also cut for steaks; it makes a good corning piece. From the cross piece is cut the shoulder clod; cross piece is worth 6 cts.; shoulder clod, 5 cts. per lb.

q. Plates for corning. When corned it is cut smaller; price 5 to 6 cts. per lb.

r. Flank for corning; price 4 to 5 cts. per lb.

s. v. Thigh or round for beef *à la mode*; *s*, worth 5 cts., and *v*, 4 cts. per lb.

u. Navel for corning; to be cut smaller before corning; price 5 to 6 cts. per lb.

w. Shank for soup or mince meat, or corning; price 2 to 3 cts. per lb., or sold by the piece. This, as well as the shoulder or arm piece, *o*, makes poor corned beef and is more economically used for soups; and after serving that purpose may be made into mince meat or hash.

Sometimes it is desirable to corn nearly the whole of the quarter for dried beef. If so, *m*, *s*, and *v*, are left in one piece, *l* and *w* being taken off; *l* is made into steaks or corned, and *w* into soup or mince meat. The balance of the thigh, consisting of *m*, *s*, and *v*, is cut into long narrow pieces from the upper part of the thigh down; they are broad at top and run to a point below. When corned they are hung up to dry and smoke; and should be hung up by the *small* or *lower* end.

e, *f*, *g*. Are the primest roasting pieces in the carcass; next come *c*, *d*, *h*, *i*; then *k*; then *b*. Many persons prefer *k*, the sirloin roasting piece, to all others; but a true epicure in beef always chooses the rib cuts; and of the rib cuts, the crop ones are far the finest.

The butchers ask most for *e*, *f*, *g*, *h*, *i*, *j*, *k*. They are about equal in price; but *e*, *f*, *g*, are more valuable for roasts; and *h*, for steaks. Prices vary according to the goodness or badness of the animal; as he may be good in his chine and crops, and bad in his loins and rumps; or the reverse; or equal in both; also according to the knowledge of the butcher founded on the fancy of his customers. The highest price is always asked for sirloin steaks when cut by the butcher. Next come *b*, *c*, *d*, chuck rib roasting pieces and steaks, and *l*, the rump steaks; then *m*, lower part of rump, *p*, cross piece, *q*, plate, and *u*, navel; *r*, flank; *s*, round; *n*, *t*, brisket; *v*, lower round or thigh; *a*, neck, *o*, shoulder, and *w*, leg.

We would respectfully suggest to all our readers to follow the above directions in cutting up their beef. It is the most economical, as proved by long experience, and will avoid *all waste*. It separates all the pieces properly, so that the good and indifferent are not joined. If a prime part be left coupled with an inferior one, and roasted, the prime only will be eaten, and much of the inferior wasted or used in some other form, as for hash or mince meat. There are parts enough for those purposes, that ought not to be wasted and should not be corned. The roasting cuts and the steaks require the juiciest meat, with interspersed fat, making what is called marbling or sparkling cutting, and the fat should not be in separate masses nor in great abundance. The prime parts are all juicy. For corning, beef should be fat; and the proper corning parts have fat in large separate masses. If the proper corning piece be roasted fresh, the lean gets soaked with melted tallow, and the roast is worthless. When boiled, this does not take place. Judicious cutting is therefore of great importance.

Sheep and swine are cut up nearly in the same manner as the ox, and have nearly the same relative value of the different parts.

FENCES.

We cannot do without some fencing in America, but to be *forced* to build *innumerable* lines of it in every direction, is a positive curse to the country, and a plague upon its morality and industry. It would be hardly possible for law or custom, in a free community, to invent and put in practice anything more burdensome, unjust, and tyrannical upon the agricultural class, than the present system of fencing. This may seem to our readers very strong language. It is so, and we mean it as such; nevertheless, it is bitterly true, every word of it, as we shall endeavor to show. It is a long conviction of its truth, and a knowledge of the deep hold that the apparent necessity of fencing their land, has upon the habits and minds of the people, which compel us to express ourselves so decidedly against an odious and tyrannical custom, that has been forced without proper reflection, upon the cultivated portions of North America ever since its settlement.

On the continent of Europe fences are scarcely known; neither are they found in many parts of England, Scotland, or Ireland; and where they now exist in these countries the people are fast lessening their number, and we fully believe that half a century hence such a thing will scarcely be in existence.

The following are our decided objections to fences:

1. They are the occasion of more angry words and brutal personal conflicts, sometimes ending with the death of one or both of the parties to it, law suits, and lasting ill-feelings among neighbors, than all other causes put together.

2. They cost immense sums of money.

3. They take up at least 2 to 3 acres out of every hundred of the land.

4. They harbor large numbers of vermin, and are a complete nursery for bushes and every noxious weed that grows.

5 They are much in the way of plowing, harrowing, and otherwise working the land; and unless a considerable number of gates are erected along their lines, they make it inconvenient getting to the fields, and by the circuits which have to be taken, greatly

increase the distances in carting out manure, bringing home the crops, and driving the stock to and fro.

6. They have a sensible effect in delaying the warmth of spring, by occasioning snow-drifts and water puddles. Land, for a strip of several feet wide, on the north side of the fences, does not become dry and warm and fit for working so soon as in the open fields, by at least 3 to 7 days. This is frequently highly vexatious to the farmer, and positively injurious in causing delay in his plowing and planting.

7. They totally mar the beauty of the landscape, and make the fields look as if they were all *imprisoned*. Strangers coming among us from an unfenced country, unquestionably at first sight think us and our cattle awfully vicious to require such ugly hedging in and around.

All the above objections to fences must strike the reader as so plain and forcible, that they need but one elucidation, and that is as to their cost; and for a calculation of this we will take New York as an average example of one twentieth part of the Union.

This State is supposed to contain a surface of 30,000,000 acres. Deduct one half for unenclosed lands and water, and it leaves 15,000,000. We are of opinion that the average size of fields here is about 15 acres; but we will suppose, for fear of making too large a calculation, that they average 20 acres. To surround one of these, allowing a trifle for inequalities of surface, it would require 230 rods of fence. On account of numerous roads and lanes, all of this does not answer for division fences; instead then, of throwing half of it off for this purpose, we will suppose 110 rods enough, and call the remainder (120 rods) sufficient on the average for each 20 acre field. Dividing 15,000,000 acres by 20, they make 750,000 fields These multiplied by 120 rods, the length of fence requisite to enclose each field, make 90,000,000 rods. Farm fences cost in this State, from 40 cents to 150 per rod. We will suppose, on an average, that the cost is 75 cents per rod, this would amount to the enormous sum of $67,500,000 for fencing New York alone. Now, allowing this to be one twentieth the cost of all the fences in the United States, the result would be $1,350,000,000! These enclosures, including stone and wood, do not last, on an average, over 25 years; the cost, then, is $54,000,000 per annum, which, with $81,000,000 of interest at 6 per cent. on the first cost, amounts to $135,000,000 annually expended in the republic for fences! It is absurd to suppose that so much fencing is necessary, and we now respectfully ask whether, in the outset of this article, we too strongly reprobated the law and custom compelling the farmers of this country to submit to so grinding and odious a tax upon their industry.

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Chinese Silk Cotton.—We have received from Mrs. James Huling, of Holly Springs, Miss., a beautiful specimen of this cotton. It is as white as the driven snow, as soft as down, and nearly as fine as silk. What beautiful comforters it would make! We respectfully solicit an article on this subject to enrich our Ladies Department. And by the way, the Southern ladies will please consider themselves especially invited to assist in this matter. There are hundreds of things in their domestic economy, which, though very familiar to them, we would gladly hear about, and they would greatly interest us northerners.

Black Sea Wheat.—We have received the samples of this wheat from Mr. Samuel Evarts of Cornwall, Vermont, spoken of in his communication last month. The berry is of good size, clear and plump. He says of it, "this wheat is successfully cultivated in Addison county, and in some other parts of the State. It yields from twenty to thirty bushels per acre, and has thus far resisted the attacks of the fly and rust or mildew. It has a very strong stalk, and is consequently not as liable to lodge as other kinds of wheat that have been tried here. The berry is very hard, and when ground in the natural state will not make as good flour as other kinds of spring wheat. The method practised here is to take a flour barrel and put into it a layer of wheat, then take a broom and sprinkle it with water, add another layer of wheat, sprinkle that, and so on till the same is filled. Let it stand till the next day and then have it ground. When treated in this way it will produce more and better flour than any kind that has ever been raised in this section of the country."

The other sample sent we handed over to the New York Farmers' Club, with Mr. E.'s account of it. We understand that it is a spring wheat, and we presume it can be had for $1 per bushel, by proper application. Mr. E. being the Postmaster at Cornwall, can be addressed free of postage.

◆

Smoking Hams.—Having given in our late volumes several excellent recipes for curing hams, we will now say, that unless properly smoked, these will be of little value. To do this the smoke-house must be well ventilated at the top, the hams hung at least ten feet above the fire (twenty to forty would be still better), and the smoke given out in moderate quantity, and come from corn cobs or hickory wood. It is important that the hams be kept cool and dry through the whole operation. Proper ventilation of the smoke-house ensures this. If they be kept moist by improper ventilation, or are placed so near the fire as to become warm, it greatly injures their flavor.

◆

Mutton Sheep.—Mr. Clift, of Putnam county, brought eight of his Leicester wethers to this market last month. They were extremely fat, and were readily taken by the butchers for prize mutton. They paid Mr. C. $15 each, for two of the lot, and $12 per head for the balance—making $102 for the eight sheep.

A Fat Calf.—Mr. C. also brought down at the same time a heifer calf five months old, of the Durham breed, which he sold to a butcher for $30. This calf had run with the dam since its birth, and took all her milk. In addition to this, it had eaten some grass and hay, and ten bushels of meal, worth $3.75. Mr. C. informs us that the price he obtained for the heifer, left him a larger profit for the milk, grass, and meal it consumed, than he could otherwise have realized from them.

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New York Farmer's Club.—At the meetings the past month, various fruits, vegetables, and seeds were exhibited, and their merits discussed. The establishment of an Agricultural College in the vicinity of New York, was the principal topic of discussion, and a petition was got up and signed, to be presented to the Legislature, asking $50,000 in aid thereof

SHEEP HUSBANDRY IN SPAIN—No. 2.

The fine-wooled flocks of Spain, in the language of that country, are called "Trashumantes," or travelling sheep, in contradistinction to the "Estantes," or those which are stationary. The former, it will be recollected, migrate every spring from the warm plains and valleys of the south, to the cool, mountainous regions of the north, where they pass the summer, and return again in autumn to pass the winter below. It is obvious that migrations of so frequent occurrence, and to so great an extent, would necessarily require some fixed regulations. Hence a great number of ordinances, penal laws, privileges and immunities were enacted or set forth in different reigns, for the preservation and special government of these sheep; and hence the origin of the ruinous privileges of the "Mesta." This was an association of proprietors of large flocks, consisting of rich religious communities, grandees of Spain, and opulent individuals with hereditary rights, who fed their sheep at public expense, during every season of the year, which eventually gave rise to a custom first established by necessity. The mountains of Saria and Segovia, condemned to sterility by the climate, soil, and the steepness of their sides, were formerly the asylum of some neighboring flocks. At the approach of winter the place was no longer tenable. The sheep sought, in the neighboring plains, more temperate air. Their masters soon changed this permission into a right, and united themselves into an association, which in time became augmented by the addition of others, who, having obtained flocks, were desirous of enjoying the same privileges. The theatre was extended in proportion as the actors became more numerous; and, by degrees, the periodical excursions of the flocks were extended to the plains of Estremadura, where the climate was more temperate and pasturage plenty.*

The Mesta requires the parts of the country where the sheep are pastured to be set off in divisions, separated from each other only by landmarks—fences, or other kinds of enclosure, being deemed unnecessary, as the flocks are constantly attended by shepherds and dogs. Each of these divisions is called a "Dehesa," and must be of a size capable of maintaining about one thousand sheep in the grazing stations of the north, and a greater number in those of the south where the lambs are yeaned and reared. Every proprietor must possess as many deheses in each province as will maintain his flock, which, in the aggregate, is called a "Cavaña," and is divided into as many subdivisions or tribes, as there are thousands of sheep contained in it. Each cavaña is governed by an officer called "Mayoral," or chief-shepherd. For each subdivision of a thousand sheep, there is allowed five under-shepherds and five dogs. The chief shepherd is required to be the owner of four or five hundred sheep, must be strong, active, vigilant, intelligent, and well skilled in everything that relates to his flock. He has absolute control over fifty shepherds and as many dogs, whom he chooses, chastises, or discharges at will. Some of the inferior shepherds assume the title of "Rabadan" or "Zagal," whose duty it is to exercise a general superintendance over his tribe under the direction of the Mayoral—also to prescribe and administer medicines to the sick and maimed. At the period of travelling, and when the ewes are giving birth to their young, two or more extra hands are allowed to every tribe; and in time of shearing, one hundred and twenty-five shearers are required to a flock of ten thousand sheep.

Of the propriety of law and order in conducting these flocks, there can be no doubt; but great exception is made to several enactments in force, and a continued struggle has long existed between the company of the Mesta, on one part, and the lovers of public good, on the other. No land that has once been occupied for grazing, can be tilled before it is offered to the Mesta at a certain rate. Long, green roads, leading from one district to another, at least two hundred and fifty feet wide, are required to be kept open, as well as extensive resting-places, where the sheep are fed and sheared. So rigid is the law on this point, that, during the periods of migration, no person, not even a foot-passenger, is allowed to travel on these roads, unless he belongs to a flock. These passages must unavoidably cross many cultivated spots, such as corn-fields, vineyards, olive-orchards, and pasture-lands common to towns, the evils and inconveniences of which are obvious and need no comment. All questions and difficulties between the shepherds and the occupants of the lands through which the roads are suffered to pass, are decided by special courts, that perform a kind of circuit, and sit at stated periods to hear and decide.

The salary of the chief-shepherd does not exceed two hundred dollars a year and a horse; that of the first under-shepherd of a tribe, ten dollars a year; the second, seven dollars; the third, five; the fourth, three; and the fifth, a boy, two dollars a year. The ration of each is two pounds of bread a day, with the privilege of keeping a few goats in the flock for their milk. They are also entitled to the skins and carcasses of the culled sheep and lambs, and each receives from the chief-shepherd, a "regalito" of three-fourths of a dollar in April and in October; and these are all the sweets that these poor wretches enjoy, with the exception of about a month in a year, which each takes in his turn, to visit his family or friends. They are exposed the rest of the time to all the vicissitudes of the weather, and at night have to lie in miserable huts formed of stakes, brambles, or branches of trees, and often sleep, as they term it, *de abaxo las estrellas*, under the stars.

The dogs are generally black and white, of the size of a wolf, with a large head, thick neck, and are somewhat allied to the mastiff breed. They are allowed two pounds of bread each a day, and as much milk and flesh as can conveniently be spared. They are so fierce and strong that no wolf can resist their attacks, and to render them doubly secure, their necks are often fortified with heavy collars armed with sharpened spikes. The bear, however, is a more powerful enemy, and if he can reach a tree he is comparatively safe. It is said, he raises himself on his hind legs with his back to the tree, and sets the dogs at defiance. In the night-time, the shepherds sometimes keep off the bears by whirling fire-brands in the air, but they generally rely on the vigilance of the dogs, which rarely bark unless an enemy is at hand. The dogs are also taught to guard the sheep on the road, and to prevent the mingling of different tribes. Should a sick or wearied sheep lag behind on the way, unobserved by the shepherds, it is the duty of a dog to protect it, until some one returns to afford relief.*

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* Bourgoanne, Travels in Spain, Vol. I, p. 39.

For a detailed account of the management of sheep in Spain, I am principally indebted to a communication addressed, about eighty years ago, to Mr. Peter Colinson, F. R. S., which was obtained directly from the mouth of a "good old friar," who, it is stated, had a consummate knowledge of all the mechanical, minute circumstances, and economy of a flock. It does not differ essentially from that given by the shepherds who accompanied the Merinos of George III., from Spain, in 1791 and 1809, and corresponds nearly with the result of my inquiries and observations when travelling in that country in 1833. He said that he was the son of a shepherd, and had followed fifteen long years the tribe of sheep his father led; that at the age of twenty-five he begged an old primer, could read at thirty, and at thirty-six, had learned Latin enough to read mass and the breviary; that he was ordained by the Bishop of Albarazzin and entered into the order of San Francisco, but had never meddled in their affairs for twenty-four years, only to say mass, confess, instruct, and to overlook about five hundred wethers which grazed on the neighboring plains for the use of the convent. He said that he had read the Bible, the Lives of the Saints, and the Lives of the Popes, with no other view in the world than to find out all that was said about shepherds. He said that good Abel was the first shepherd; that all the patriarchs were shepherds; that the meek shepherd Moses was chosen to deliver the people of God out of bondage; that Saul, in seeking his father's flocks, found a kingdom; that David went out from his flocks to slay the Philistine giant; that 14,000 sheep was the chief reward Job received for his invincible patience; that Isidro, the protecting saint of Madrid, was not, as commonly believed, a husbandman, like wicked Cain, but that he really was a keeper of sheep; that the great Pope Sextus Quintus was verily and truly a shepherd, and not a swine-herd; that for his own part he had forsaken his sheep to become a shepherd of men.

The first thing the shepherd does when his flock returns from the south to their summer downs or pastures, is to give them as much salt as they will eat. Every owner allows to each tribe of a thousand sheep, twenty-five quintals of salt (2,500 lbs.), which they consume in about five months. They eat none on their journeys, nor are they allowed any in winter, for it is a prevailing opinion that it produces abortion when given to ewes forward with young. This has ever been the custom, and is thought to be the true reason why the kings of Spain could never raise the price of salt to the height it has maintained in most parts of France; for it would tempt the shepherds to stint the sheep, which, it is believed would weaken their constitutions and deteriorate their wool. The shepherd places fifty or sixty flat stones, at the distance of about five paces apart, strews salt upon each, leads the sheep slowly among them, and every one is allowed to eat of it at pleasure. But when they are feeding on lime-stone land, whether it be on the grass of the downs, or on the little plants of the corn-fields after harvest-home, they eat no salt; and if they meet a spot of a mixed formation, they are said to partake of it in proportion as the soil is mingled with clay. The shepherd being aware that his sheep will suffer, if deprived of salt, leads them to a clayey soil, and in a quarter of an hour's feeding, they march to the stones and devour whatever they need.

One of the shepherd's chief cares is not to suffer his sheep to imbibe in the morning the frozen dew or melted frost, and never to approach a pond or stream after a shower of hail. For, if they should eat the dewy grass, or drink the melted hail, the whole tribe, it is believed, would become depressed in spirits, lose their appetites, pine away, and die, as often has happened. Hail water is also so pernicious to man, in that climate, that the people have learned by experience not to drink from a rivulet or stream until some time after a violent storm of hail.

On the last of July, six or seven rams are permitted to run with every hundred ewes, and when the shepherd judges they are properly served, he collects the former into a separate tribe, to feed by themselves. There is also another tribe of rams, that feed apart, and never serve the ewes at all, but are merely kept for the butchery or for their wool. Although the wool and flesh of wethers are finer and more delicate than those of rams, the fleeces of the latter weigh more, and the animals are longer-lived. The longevity of the sheep also depends upon the perfection of their teeth; for when they fail they cannot bite the grass, and are condemned to the knife. The teeth of the ewes, from their tender constitution and the fatigues of breeding, usually begin to fail at the age of five years—the wethers at six; and the robust rams not until they are nearly eight years of age.

Towards the close of September, the shepherd performs the operation of smearing the sheep with a heavy, irony earth, common in Spain. It is first mixed with water, and then daubed on their backs, from the neck to the rump. Some say it mingles with the oil of the wool, and thus becomes a varnish impenetrable to the cold and rain; others, that its weight keeps the wool down, and prevents it from growing long and coarse; and a third class, that it acts as an absorbent, and receives a part of the perspiration, which would otherwise foul the wool and render it rough. Be this as it may, it is a custom of long standing, and probably is useful both to the fleece and to the animal which carries it, and answers the purpose of destroying vermin.

At the latter end of September the sheep commence their journeys towards the lower plains, their itineraries being marked out by immemorial custom, and are as well regulated as the march of troops. Each tribe is usually led by six tame wethers, called "Mansos," which are obedient to the voices of the shepherds, who frequently give them small pieces of bread, to encourage them along. The sheep feed freely in all the wilds and commons through which they pass, and often the poor creatures travel fifteen or twenty miles a day, through the crowded lanes, to get into the open wilds, where the shepherd walks slow, to let them feed at ease and rest; but they never stop, have no day of repose, and march two or three leagues a day.

*** An interesting article on the Mexican shepherd-dog, which is descended from the Spanish, will be found in volume III, of the American Agriculturist, p. 241, to which the reader is referred, should he wish to know more of the duties and habits of these wonderful animals.**

ever following the shepherd, always feeding or seeking with their heads toward the ground, till they arrive at their journey's end. The chief shepherd is cautious to see that each tribe is conducted to the same district in which it fed the winter before, and where the sheep were yeaned; for it is thought to prevent a variation in the wool, though, indeed, this requires but little care, as it is a notorious truth that the sheep would go to that very spot of their own accord, although the distance is sometimes full one hundred and fifty leagues, which cannot be travelled in much less than forty days. D'Jay Browne.

New York, January 10, 1845.

THE LOCUST TREE.

In answer to a Subscriber, page 345 of your last volume, inquiring respecting the spread of the locust, I will state that Judge Beatty, of Kentucky, has written a very interesting article on the cultivation of this beautiful shade and timber tree, which appears in a volume lately published by him on Agriculture. I shall not quote from it, but merely state what he told me a few weeks since, when visiting his plantation, in answer to the same question which I asked myself. I found he had locust groves at various points, in every direction, all over his plantation, of one or more acres each. These groves are surrounded by a strong rail fence, to keep the cattle from them; and although the locust is the natural growth of the farm, not a single shoot or tree appears outside the fence. He says stock will utterly destroy the suckers or shoots, whenever they can get at them. I think, however, it would be inexpedient to plant them near a garden or other enclosure, where cattle or sheep are not allowed to range, unless it be such as is thoroughly cultivated by deep plowing or spading every year, in which case they would be entirely eradicated and destroyed as they made their appearance. The locust is a most valuable timber, as well as beautiful shade tree; and it has always been a matter of surprise to me why it has not been more generally cultivated. I knew a tree standing within 20 miles of New York city, a few years since, which was sold for $50, in case it proved sound on being cut. It was intended for ships' trunnels. It makes durable posts for open board fence, as well as bottom rails for a worm fence; also stakes for the same purpose, which are said to last *for ever*, although I have not tried them quite so long. A Traveller.

What are the best Grasses for Dairy Stock on Clay Lands?—I am clearing off 100 acres of clay land, and wish information as to the best grass seeds to be sown upon it, for permanent pasture for dairy cows. The soil, of course, is virgin mould, of good quality, and is "natural," as they say, to white clover, and blue, goose, spear, or June grass; for such are the four local names of *poa pratensis*. Much of the land is nearly level, and difficult of drainage, being filled with numerous ponds of surface water, the bottoms of which are rich in vegetable matter. This must be first drained off, or I shall have no profitable vegetation on it. Other portions are a stiff clay with little vegetable mould intermixed. The land is covered with stumps and roots. What grasses shall I sow, single or how mixed? The best season for sowing, and the best manner of getting them well in?

The art of procuring rich pasturage for cattle is, in this country, little understood or practised; yet it is an item of vast consequence, as many fields might be made to produce twice, and even thrice the amount of food now obtained from them. An early answer will oblige, Querist.

The best manner of getting in grass seed has already been frequently detailed in this periodical. Our correspondent cannot do better than to stock his land with a mixture of timothy, red top, and red clover, in equal quantities. August and September are the best months for sowing the two former, and March and April the latter. Then let the white clover and spear grass (*poa pratensis*), come and occupy the land as the cultivated grasses die out. Of the value of white clover and spear grass for dairy stock, see Mr. Bellows' letter, page 52 of this No.; and for their value for fatting sheep and other animals, see notice of Mr. Clift's farm, page 226 of last volume. The quantity of these grasses per acre is not as great as timothy, red top, and red clover, but it is thought the superior quality of them more than compensates the loss in quantity.

FEEDING STOCK.

There is no branch of agriculture in which the farmer suffers so much loss as in that of feeding his stock. Some men seem to think that all they can save from being consumed by their stock, is so much saved, provided the cattle do not die by starvation. I knew a man, half a century ago, who was proverbial for overstocking his farm, and always lost more or less cattle and sheep every winter by actual starvation, until the public would bear it no longer, and presented him to the Grand Jury, who found a bill against him for cruelty to dumb beasts. He was tried by the court, then in session, found guilty, and suffered the penalty of the law. It was said (but your readers are not bound to believe any more of it than they choose) that the wife used to go into the yard every morning, in the spring of the year, with a large pocket on each side of her, such as used to be worn in those days, the one filled with potatoes, the other with corn-cobs. As she approached an animal she would give it a push with her hand; if it *stood*, she would give it a *cob!* if it fell, she would give it a *potato!* I have been led to reflect on this subject, from having just returned from a visit to a friend; and although fatigued with my day's ride, have taken up my pen to communicate what I have seen of his management.

All will recollect the snow-storm which we had here on the 26th and 27th of October. The cattle were then in fine condition, and were fed a little hay while the snow lay upon the ground, which was only a few days. In the mean while, they have been allowed to run in every direction over the farm, which is a large one, poaching the lands that have been seeded down the past season, and gnawing the grass to the very roots of the meadow grounds, destroying a foundation for four times as much hay, which would have probably grown next year, as it would have taken to keep the cattle during the month which they have been running. Nor is this all, for the cattle have come into winter quarters actually shrivelled up—trembling with the cold, and will not recover from the check given to their growth until they are turned out to fresh pasture next season. The calves, of which he had a fine lot, have suffered the most, and are many of them spring-poor, as the no-book farmers say; but there ought to be no such application of the term—cattle ought to come out in the spring in as good condition as they are in the fall, and will, if stabled early, and fed with as much good hay as they will eat. They ought, however, to be well curried once a day, have salt often, and as much water as they will drink; and never be suffered to put feet upon pasture in the spring until there is a full bite of feed, and the ground is sufficiently hard to bear the animals without poaching.

Farmers, if you cannot afford to keep your stock in this way, either keep none, or remove to a climate where they will require less attention.

VALLEY OF THE GREEN MOUNTAINS.

December 1, 1844.

AGRICULTURE IN VENEZUELA.

WE have quite a number of subscribers to our periodical in the different States of South America, and occasionally get interesting letters from gentlemen, residents there, which we would like to publish. Knowing the great interest that many of our readers on this side of the equator take in the agriculture of South America, we give a few extracts from a letter recently received from Caracas, in the republic of Venezuela. Spanish and French gentlemen, in addressing us, need not be at the trouble of translations, as we are familiar with both of these languages.

"Agriculture in this country, as yet, has not availed itself of modern improvements, either in implements or husbandry. There is, however, a disposition to introduce improved stock, and improved agricultural implements. Agriculture and the breeding of stock are, in these tropical climates, distinct objects of occupation. A society has lately been formed in this city, entitled *La Sociedad de Criadores*—Society of Breeders.

"Cocoa is cultivated in the rich alluvial soils of the low valleys, about 60 miles to the eastward of Caracas; cane and coffee within three miles. In the cultivation of cane, we use both the plow and the harrow. We plant the tops in furrows, about five feet apart. After plowing and harrowing the ground well, we commence making the furrow by taking one bout with the plow as straight as possible. It is then spaded out neatly, leaving it about 16 inches wide and 10 inches deep. The cane tops are then laid in two rows, one on each side of the furrow the whole length, and then slightly covered with mould from the banks. Thus there remains a space between each row or furrow, of nearly four or five feet, according to the fertility of the soil. Before the cane covers the ground, so as to prevent the growth of weeds, it receives from four to six clearings with the hand-hoe, in the course of which the young plants receive a slight supply of fresh mould. Now, sir, my object is to inquire of you, if you have any implement used in North American husbandry drawn by horse-power, that would answer to do the work of hand-hoeing? Hand-weeding among the young plants would still be required. We do not fill up the furrows entirely, being obliged to leave them a little hollow for the purpose of irrigation.

"I have been much interested in Mr. R. L. Allen's article upon the utility of mules. You are probably aware that this is a great mule country, or rather was at one time. Our mules, however, are very small, compared with the stature mentioned in the paper alluded to."

The cultivator, of a proper kind, would answer well for hand-hoeing among the cane. Price of good ones varies from $7 to $10. Mules can be had here from 14 to 15½ hands high, at $100 to $200, each. Young Durham bulls from $75 to $150. Durham cows from $150 to $300, dependent entirely upon breeding and quality. A good cow, well fed and cared for, will give from 16 to 24 quarts of milk per day. It would be well for South America to supply herself with our well-bred mules, cattle, sheep, and swine.

POLICY OF AMERICAN FARMERS.

FROM a private note, I learn, that "Policy of American Farmers, No, 3," is not acceptable for the columns of the Agriculturist, on account of its advocacy of a protective tariff. The article is a brief recapitulation of some important and striking historical facts relating to this subject, and confined exclusively to our own country, within the last 80 years. They exhibit the baneful effects of neglecting to provide for some of the first and most pressing wants of Americans, both in their individual and national capacity. They show the immense private suffering, and the danger to our very existence as a nation, from an omission to furnish within ourselves such manufactures as were necessary for consumption, or indispensable for defence.

"Policy No. 4," further illustrated this subject, by a reference to ancient and modern history, showing conclusively, that nations exclusively agricultural, have ever been ignorant and impoverished; while such as have superadded manufactures and commerce, have occupied the highest place among the enlightened, opulent, and powerful of their contemporaries. I thought American farmers might draw an invaluable lesson from these illustrations, to guide their judgment in sustaining a policy vital to their own prosperity and interests; and I thought, too, that two or three pages of a paper strictly agricultural in its character, were not too much to occupy in the briefest reference to this important topic. But as you think some of your readers may object to even the bare mention of a subject which has, to a certain extent, been (improperly) connected with political or local considerations, I submit to your better judgment; not, however, from the slightest conviction in my own mind of the validity of this objection. Truth, and a correct and just policy, should at all times be upheld; yet with a force, and to an extent strictly limited to the occasion.

To continue the "Policy of American Farmers," with this vital feature interdicted, would be like playing Hamlet with the part of Hamlet left out; or the construction of a human body, without the anatomical framework to sustain the flexible muscles and fluids which constitute it. You may, indeed, thus have an oyster or soft crab; but this shapeless, deformed, and helpless mass, it is necessary to bury in the sand, or an impenetrable shell, or it will become the prey of the first passing cormorant. R.

January 3, 1845.

Agriculture in Scotland.—No. 4.

The Potato Disease.—My attention has of late been often arrested, by accounts of the wide-spread and destructive ravages of the potato disease in the United States during the past season. I have, through the kindness of Professor Johnston, been favored with a collection of opinions on this subject, from various shrewd practical observers, and have personally attended some most interesting discussions, in several parts of Scotland, where every means of information was brought to bear upon this mysterious disease, in the hope that, upon the whole collection, some general rule for its avoidance or cure might be founded.

Cause of the Disease.—There is but one opinion as to the prevalence of the disease, but a wide difference as to the means of its cure.

1. I have found that all consider the potato plant to be in a weak and sickly condition, from a long course of cultivation and of ill-treatment. Many ascribe this condition to improper stowage during the winter. They are generally placed in large masses, in pits or cellars, and as an almost inevitable consequence, a certain degree of heating and fermentation takes place, which, it is thought, destroys the vital principle. This opinion is probably correct, as, during fermentation, a portion of their proteine (nitrogenous) compound, is decomposed, while at the same time a part of their starch is converted into water and carbonic acid. Now these potatoes are not rotten, but they will not vegetate so vigorously, and will be less healthy, than the unfermented or unheated seed.

2. They should not be allowed to sprout before planting, so that the sprouts are likely to be broken off. Experiment has proved that such potatoes grow slowly and weakly, if at all. These sprouts contain a large per centage of saline matter and nitrogen, and when they are removed the tuber is so much poorer in these important ingredients.

3. Exposure to the sun and drying wind just before planting, has been spoken of as a great evil.

4. The important fact that these failures have most frequently taken place on long cultivated lands, where some of the necessary substances may have become exhausted.

The means of Cure.—1. All seem to agree, that the first step, in most cases, is to drain the land, and either by the spade, or subsoil plow, to pulverize it deeply and thoroughly.

2. Many excellent farmers do not take the potatoes which they design for seed from the ground at all; they throw up over them a high, narrow ridge, and leave them until the time for planting arrives. Mr. Anderson, a manager of large estates in Ireland, takes them up, and places them in shallow, long pits, not more than 2½ feet wide at the bottom, and having the earth heaped over them in as steep and high a form as possible. Before he touches them again, the field where they are to be planted is ready for their reception; they are then taken out, planted, and covered, within half an hour. By the selection of *unripe* seed, and treating it in this way, he has had excellent crops, while all around have failed.

3. Taking up the potatoes before they are ripe, is strongly recommended by many good observers. Experiments on this point have, in many instances, seemed to indicate that this procedure is the best. It is not, as might be at first supposed, contrary to scientific principles; for it has been found that those potatoes which most abound in starch, have in many instances been most liable to failure; now it is said, that starch is less abundant in the *unripe* potato. We know also, that, as a general rule, those potatoes are the most hardy, and the least liable to failure, which are the worst for eating; that is, which are poorest in starch. Thus, it would seem to indicate, as Professor Johnston has said, "that whatever goes to increase the per centage of starch, increases also the risk of failure in potatoes that are to be used for seed."

4. In connection with this point, is the fact, that many good farmers grow their potatoes intended for seed upon new land, or land which has long been suffered to rest. It is asserted, that potatoes grown upon such land, are remarkable for their small proportion of starch; and the few experiments that have been made, seem to favor that assertion.

5. I have found frequently, that farmers prefer for seed those potatoes which have been partially out of the ground, and have acquired a green color. They carefully select, and lay them in a separate pile. Some even dig them up, and expose them to the sun and air, until they become quite green, and entirely unfit even for the food of animals; they are then preserved in the usual way. Several of these persons say, that they have followed this method for years, with complete success. The little green protuberances that grow on the stalk, just above the ground, are said never to fail.

6. Whole potatoes are thought to grow more surely than those which are cut, but do not yield so large a crop, nor *generally*, of so good a quality.

7. We are not, however, always to ascribe the disease to the organic part of the potato. The inorganic part may be deficient. Where land has been long cultivated, some of the inorganic constituents necessary to the plant may have become exhausted; and though these together only amount to about eight-tenths of a pound in a hundred pounds of the tubers, the absence of any one of them is fatal to the healthy growth of the plant. Some very interesting experiments upon this point have been made by Mr. Fleming, of Barochan, near Paisley. Analysis has shown his land to be in some degree deficient in saline substances, especially salts of magnesia. Acting upon this, he applied top-dressings of sulphate of magnesia, nitrate of soda, &c., to his potatoes, and found the effect most remarkable. One hundred pounds an acre, or even less, of these salts, produced an increase of several tons in the crop. It was found that the potatoes raised in this way, when planted the next season, came up strong and vigorous; while the same variety which had not been top-dressed, planted close beside them, and subjected to the same treatment, was weak and yellow.

8 It has been stated, that plucking off the flowers, so as to prevent the plant from bearing seed, produces a marked effect; but this is now disputed by some good authorities.

9. Much stress has also been laid upon raising new varieties from seed, and thus commencing a new, vigorous species. This may be in some cases successful, but in many instances it has failed. Mr. Fleming says that he has made many thousand trials, and never produced a healthy variety.

You will, I think, be convinced by this sketch of the subject, that although the question is not definitely settled, much has been done towards throwing light upon it, and the way opened for intelligent experiment. In the hope that our farmers will join in the effort to discover a remedy to this formidable disease, I will venture to suggest some of the points to which it is most desirable they should turn their attention:—1. To place the potatoes intended for seed in small heaps, where the temperature is even, and where there is no danger of heating or fermentation. 2. Not to allow them to sprout, so that the sprouts may be broken. 3. To plant as soon as possible after removal from their place of deposit. 4. To save a quantity of seed in an unripe state; also to select some of those tubers that have been exposed to the sun and air, and have become quite green. 5. Try some of the diseased seed upon new land that has not before been cultivated. 6. Try the effect of top-dressing with saline manures; for instance, nitrate of soda, and sulphate of magnesia or of soda, mixed, at the rate of 75 pounds each to the acre.

JOHN P. NORTON.

Edinburgh, Nov. 25, 1844.

FARMING IN NORTH CAROLINA.

We are located in latitude 35° 30′ north, near the range of the Blue Ridge, or great Allegany mountains, 50 miles distant, in one of the finest countries that man was ever permitted to inhabit; yet with the wretched system of cultivation heretofore practised by our inhabitants, *it has become poor.*

About five years ago I first resolved to attempt scientific farming; if it has not resulted profitably to me, it has had the effect of stimulating others to exertions and improvements which are quite perceptible to the most careless and unobserving. The impress upon the face of the neighborhood is really encouraging; and were it not for the delusion under which we labor, of a desire to raise cotton, and our slave population, we might hope for success.

Manuring and Ditching.—The application of compost manure, formed on the ground to be cultivated, by a mixture of swamp muck, stable manure, sod from the woodland, and about two bushels of lime to the acre, with attention to hill-side ditching, has enabled me to raise from 36 to 40 bushels of Indian corn on land before too poor for any crop. In another experiment the success has far exceeded the expectation of the most sanguine; this was on a flat piece of land, covered most of the year with water, and with a heavy growth of lambo [briars] where it was dry enough, with weeds, iron wood, and other noxious shrubs and plants. This was cleared up, and ditched about five feet deep; at the bottom of the ditch, the hard pan of blue or white clay was perforated with an augur, or occasionally cut through with the spade; rock [stones] were put in the bottom, and carefully covered with split timber, and then the ditches filled up. They were entirely dry when finished, but shortly after they were completed there was a fall of rain, when the ditches began to discharge a considerable quantity of water, and have ever since made good running streams. The ground has become light, loose, and friable, and has yielded about 75 bushels, or 15 barrels of corn to the acre. For the labor in cutting the ditches I have been more than remunerated in the quantity of muck (or more properly speaking, clay), furnished for compost beds, with which the poor hill sides have been manured. When dug up, this clay was extremely hard, forming the pan on which the water bed rested, and was not unlike brick when first taken from the mould. In four loads of this clay I alternately added one load of good stable manure, until the compost heap reached from 50 to 100 loads. This was done in summer, or early in the fall, and suffered to remain in the heap until spring, when it was applied to corn land. May not the fertilizing quality of this compost have arisen from the entire disintegration of the clay by the frost? And was not its capacity to collect and retain ammonia increased as the affinity was broken up?

I am a great advocate of atmospheric manure, and have come to the conclusion, that atmosphere is the matrix of all manures; and that no other manure is valuable only as it is auxiliary to the atmosphere. This may at first view appear to be a startling and dangerous doctrine; it would most certainly be so, if carried to the extent that Jethro Tull did; that is, that all other manures were to be excluded. I am in favor of giving every aid to atmosphere in our power, by all alkalies, composts, and such fixed salts as will impart to the earth the greatest possible capacity to drink in and retain the gases best suited to its support.

In the compost beds referred to, there were a few bushels of ashes put in with the swamp earth, but so mixed as not to come in contact with the stable manure—the object was for the ashes to exert their full influence on the muck. They would not have been injurious to the stable manure, for I find that in my cow-yard it is beneficial to throw a few bushels of wood ashes over the litter occasionally, to fix the salts contained in the urine, and tail manure. Thirty wagon loads of rich swamp mud, put up in heaps in the fall, with the addition of two bushels of caustic lime, is found to be valuable for the reclamation of a sandy land resting on a clay subsoil. The latter description of compost was applied to sandy land, too far from my house to add any stable manure, and with extraordinary effect, producing about the same result that the first mentioned compost did on the clay land, viz., 36 to 40 bushels of corn to the acre where the land had been worn out.

In connection with this subject, hill-side ditching must not be disregarded. It is perhaps more important to us, than in your climate. The heavy rains of summer have done great injury to the soil of the southern States, by working off the most valuable of the hills, and draining the bottom land; this is effectually guarded against by laying off the land judiciously, and ditching. It has the effect of protecting both the upland and bottom, by preventing the flow of water during hard rains on the latter, and the washing or wasting of the former.

Sir John Sinclair has, by his perseverance in the cause of agriculture, done more for his country than half the politicians and military men of his age One great secret of his success is, his attention to draining the land well, and then protecting it by hill-side ditches, or what he calls water-furrows, carrying all the excess of water into his ditches and ponds.

In the second volume of Mr. Ruffin's valuable work on agriculture, the Farmers' Register, I find that the application of leached ashes with half its quantity of plaster of Paris, has had a fine effect when put in the corn-hill. Can you inform me whether a mixture of carbonate of lime and leached ashes would not be equally salutary? As a manure, I should think it preferable; but, as a food for the plant, or what is properly turned alimentary manure, it may not be equal to the plaster (*a*) The slovenly practice of manuring in the hill, ought never to be resorted to by any farmer who has a regard for his estate and reputation; it seems to me too much of the miser and usurer. (*b*)

Lye, Urine, Ashes, Plaster.—Wood ashes, when protected from rain, and wet occasionally with urine from chamber vessels, is of immense value. I made an experiment on a piece of ground under some apple trees, which was covered with moss, produced no doubt by the sterility of the soil, and a redundancy of acid. Equal parts of lye from wood ashes and chamber lye were added together, diluted with water (about two gallons of water to one of this mixture), and applied by a watering pot to the soil, say six gallons to a rod square. In two or three days the moss was destroyed, and a very luxuriant crop of white clover and blue grass succeeded it. On another grass plot in my yard, an application of wood ashes not saturated with chamber lye was made; by the side of this an equal quantity of plaster of Paris was put on an equal sized plot; the piece manured with ashes was decidedly the best. This trial, and some others with lime, have depreciated plaster in my estimation; my settled conviction is, that the same sum expended in lime or ashes is more efficient than in plaster. (*c*)

Lime.—I have been purchasing lime, and hauling it about 27 miles. It has amply compensated me for the cost, say 15 cents per bushel, and the price of hauling. Being now in the decline of life, and having spent most of my time in other vocations, I feel that I must be permitted to indulge in some hobby; I find none so innocent and attractive as my new profession of agriculture. I may be led into error and extravagance in some of my experiments; but if they have the effect of promoting the cause of agriculture, I shall be compensated for my labor and expense.

A. M. Burton.

Beaty's Ford, Dec. 15, 1844.

(*a*) Whether lime or plaster would be most beneficial, must depend on the nature of the soil, and the crop to be raised from it.

(*b*) Spreading the manure broad cast should be generally followed; in addition to this, it is considered good practice to manure lightly in the hill, to give the crop a start; and again on the hill around the plant, just before it commences fruiting. One must be guided by circumstances somewhat in these matters.

(*c*) We think our correspondent should make other trials before condemning plaster, as local causes may have caused its inefficiency. If sown in dry weather, its effects will not become apparent for some time; if in wet weather, almost immediately. Plaster is a part of the food of turnips, clover, sainfoin, lucerne, and some other plants. It is found that an ordinary crop of these grasses usually contains from 1½ to 2 cwt. of this salt per acre. To such crops the application of plaster must be beneficial. To other crops, such as peas, beans, wheat, oats, and barley, it is of little service; because, upon analysis, scarce a trace of plaster can be found in them. Perhaps the soil where Mr. Burton applied the plaster to the grass was exhausted of its potash; if so, it would be of no material benefit to the grass. See this explained page 225 of our last volume.

GREAT BUTTER COW.

You have, in the September number of your excellent paper, noticed an account given by me of a half-blood native and Devon cow, as published in the Massachusetts Ploughman, and ask me to inform you how she was fed during the seven days in which there was made from her milk 16 lbs. 10 oz. butter.

The pasture in which she is kept is upon the summit of one of our hills, from which you have a view of the valley of the Connecticut for 20 miles, and of the Green Mountain range for nearly 40. I do not know that the view affects the quantity or the quality of the milk; but high and warm ground produces sweet feed. As Senator Benton would say, the barn yard and pasture are "conterminous," and after an early milking in the afternoon, she is turned into the pasture to spend the night, where, during the cool of the evening and morning, she can feed without annoyance from heat or insects. This was the only peculiarity in the treatment of the animal. The grass is principally white clover and spear grass (*poa pratensis*), which never gets long. The pasture contains 8 or 10 acres, and has been long used, and was at this time supporting two cows, a mare and her foal. The cow ate nothing but what she obtained from the pasture, and I feel certain that nothing could be fed which would yield a larger quantity of milk or butter. The shorter the feed the better, if the animal can fill herself. This little cow that would not make 550 lbs. of beef, grass fed, produced this quantity of butter, while a Durham of the largest class would scarcely live. This cow, in 9 days in the last half of October, besides furnishing cream for tea and coffee for 3 persons, made 16¾ lbs of butter—fed with three pumpkins each day, besides the fall feed. I am raising a bull from her, got by a Durham, from the stock owned by Wm. Watson, Esq. of East Windsor, Ct., and I hope at some future day to give a good account of the cross.

Wm. Bellows

Walpole, N. H., Dec. 29, 1844.

IMPERIAL OATS.

Among the numerous varieties of oats at present cultivated in this country, the *Imperial* variety deserves particular attention, not only on account of the ease with which it is cultivated, the produce per acre, and its superior weight, but also to gratify the laudable ambition that every farmer should possess, to raise the best of everything on his farm.

Some 7 or 8 years since, a quantity of these oats was sent out from London to Mr. Alexander Smith, seedsman of this city, who has cultivated them since that time. When he first received them they weighed 42 lbs. per bushel. By cultivation in this country they have improved in weight, until they now weigh from 40 to 47 lbs., according to the soil, season, and *care in cleaning.*

Several years ago, Mr. S. sold some of the seed to a gentleman on Long Island, who supplied Mrs. P Ludlow with them. I saw, a few days since, a sample of Mrs. Ludlow's oats, which she has cultivated for 5 years, weighed at Mr. Smith's. They weighed 47 lbs. per bushel. Mr. Smith's crop of this season, weighs 46 lbs.

Mr. A. Stevens, of Genesee county, has raised this variety of oats two years. He also had an opportunity of observing their cultivation for several successive years. He found that they yielded more per acre sown under like circumstances, than the common oat; for while the former weighed 44 lbs., the latter, well cleaned, only weighed 32 lbs. per bushel. The third year, in consequence of the dryness of the season, Mr. Stevens observes, that the crop fell off to 36 lbs., but the next season they recovered their original weight. He thinks they have now become acclimated, and that such an occurrence will not take place again; for in 1841, some of these oats were sown, no rain fell on them for six weeks, the summer was dry and warm, but yet the crop weighed 44 lbs. per bushel.

These oats, like all other grains, should be sown on good soil. If it requires manure, it had better be applied to such a crop as is improved by barn yard manure; for example, corn or potatoes, and then the oats sown the succeeding year. In cultivating them, the ground should be plowed as soon as possible in the spring, the oats sown in the plowed furrow, and then well harrowed in. If the intention be to seed the land down with grass, which has proved a good plan with me, then the oats should be sown first, the grass seed next; and after the ground is harrowed with the common harrow, it should be well brush-harrowed or rolled.

From 2 to 3 bushels of seed should be sown to the acre. More or less seed according to the quality of the soil. Rich and well-cultivated ground requiring less than a poorer soil, as the oats will tiller better. Great care should be employed in harvesting the crop, as the grain shells very easily. The crop should be cut *early* while the berry is full and soft, even before all the straw has turned yellow, else a large quantity of the grain will be lost, and what you have will be darker, lighter in weight, and more husky.

From the above it does not appear that these Imperial oats degenerate, as was remarked by General Talmadge before the Farmers' Club in this city. All those who have cultivated them, as far as I have been able to learn, consider them superior to any other variety at present raised in our country.

New York, Jan. 1845. H. A. Field.

CULTURE OF RICE.

Georgia has a front upon the sea, from the Savannah to the St. Mary's, of a little more than one hundred geographical miles. Within that space, five rivers bring down and discharge the waters of the interior into the ocean, having at their mouths each a considerable portion of alluvial lands. The fresh waters of these rivers in their descent repel the salt waters of the sea, and confine them to certain limits. It is within this disputed empire, upon this debateable ground, that our most valuable plantations are situated; for man has stepped in and said to the waters of the sea and the rivers, this land is mine; I will raise dykes upon it, and bound you out; I will dig trenches in it, and place water-gates upon them, so that if the rains fall they shall flow off; but when drought comes I will lift my water-gates, and let you in to flow my rice and my sugar cane, my cotton and my corn, and there will be health, and healing, and fertility, in your floods.

In Georgia, there are probably thirty thousand acres of land, upon these five rivers, of this alluvial soil so situated, of which the Altamaba gives fifteen thousand. In South Carolina, from her greater extent of coast, there must be at least fifty thousand acres of the same quality. Not one half of these lands in Georgia are yet reclaimed by being embanked and drained, although there is every motive in favor of their being so; for they are, with the lands of South Carolina of the same description, as far as I know, the best rice lands in the world; because only upon these lands in these two States, do the waters, twice in twenty four hours, rise high enough to water them; and twice in twenty-four hours, sink low enough to drain them.

The tides do not rise and fall sufficiently in the Bay of Chesapeake, to water and to drain those alluvial lands; these benefits only extend from Cape Fear river to the St. Mary's river. Florida has no river land of this description, and the Gulf of Mexico has no practicable tides, useful for this purpose, so that the lands at the mouth of the Mobile and Chattahoochee rivers, like the lands at the mouth of the Mississippi, are not reclaimable for any valuable purpose.

There is no place in the United States, nor perhaps in the world, where any culture has been so systematized as the rice culture upon these lands, in these two southern States. In China and Hindostan, where the rice crop is the great crop of the country, rice is transplanted by hand, from the seed-bed to the field. This can only be done where labor is of less value than seed or lands. The principal motive, however, for this course, I conceive, is, to save water, as they depend upon flowing their rice lands, either when their rivers rise above their banks in periodical freshets, which is but for a short portion of the year, or from tanks and reservoirs, where water is kept in reserve, to let down upon their fields once or twice in the season. They cannot therefore let this water off their rice lands, until it has given to their rice (which is an aquatic plant), all the benefit it is capable of imparting, lest they should not be able to refill their fields when they may require it. In Italy, probably from the same cause (the want of water), their rice lands are most carefully prepared; they are plowed and harrowed, when a small portion of water is let on upon them; and while the soil is in a fluid state, the rice is sown broad cast over the field, and the water is never again taken off the lands, until just before they are reaped. All weeding must be done inconveniently and unhealthfully, and is done by women wading in the water; yet some Italian fields after a crop of hemp, with this treatment, have given the greatest crops of rice ever produced within our knowledge—sixty bushels of clean, or one hundred and twenty bushels of rough rice—yet, from our having a free command of water, putting it on, and taking it off as we will, our general crop of rice, say fifty bushels in the rough, is better than the general crop of rice in Italy, India, or China. But I will now proceed to a description of our own rice culture.

To protect these alluvial lands as well from the waters of the river, when the rivers swell by abundant rains or the melting of snow upon our mountains in the spring, as from the increased rise of the tides, with the East wind, in spring and autumn, banks or dykes are constructed along the borders of the rivers, at from ten to thirty yards from the water's edge; the distance depending upon local circumstances. These dykes should be raised four feet above the general level of the land, and it will require to do this, a ditch or trench to be dug at twenty feet from the bank within the field, ten feet wide, and four feet deep, in marsh lands where there are no trees to obstruct the labor. Ten feet in length of this dyke and trench is accomplished per diem by the laborer; but when the land is covered with wood, not more than half the quantity can be calculated upon. When the great outline of the field has been accomplished, and water-gates (called trunks or flood-gates) have been put down, so low as to draw the water from the fields and trenches when the tide subsides in the river, and to flow them when it may be necessary to the crop, and when the tide is at its full; then subdivisions are made within these outer dykes by other dykes, so as to lay the field off into convenient portions of from twenty to fifty acres, in such forms as are best adapted for taking on and letting off the waters from the fields. For myself I believed and experienced great benefit in receiving the waters of the river at one end of the field, allowing them to escape or weep off by a small water-gate at the opposite end, as this necessarily changes every portion of the water; again, small drains eighteen inches at top, and nine inches at bottom, and two feet deep, should be carried across these fields in their shortest diameter, at every hundred feet distance, or better still, at every fifty feet distance; so that when the waters are withdrawn, there is no sobbing or partial pondage, from inequality of level.

These objects being accomplished, and the soil prepared for the operation of sowing the seed, trenches are made with a hoe in new lands, and sometimes with a plow in old at fourteen inches apart, so as generally to give eighty-four of these trenches in a quarter of an acre; from two to two and a half bushels of rice are sown carefully along the drills to the acre to be covered with two inches of soil. When this operation is accomplished in one of the divisions of the field, the water-gates are opened, and the water let in, and kept on the field from five to ten days, depending upon the temperature of the weather to sprout the rice in the first place; and again, to take off all redundant matter that may float upon the surface of the water, and which will be drifted to one or other side of the field, as the winds may blow. When these five or ten days have passed away, and the rice, on examination, is found to be germinating at its bud, and the trash or drift floating upon the surface of the water is removed, the waters are withdrawn from the field. From four to ten days will show the rice, rising green along the drills; but the birds will be collecting in flocks from every quarter, to prey upon the rice, just showing itself on the surface, the grain softened, yet sound and sweet. From this cause, for myself (although many do not do this), I let the water again upon the field, and keep it there from two to four days, according to the temperature of the weather—if warm, shorter; if cold, longer; this pushes the rice forward, and shortens the time that the birds can operate injuriously upon it, and is called by rice men the point flow. Let it be understood, however, that it is almost impossible to save rice that vegetates and comes through the ground during the month of May, from a small bird of passage, called commonly the May bird (described by Bertram and other naturalists under other names), which, arriving from the south, sweeps whole fields before it. If, therefore, we are as late as May with any portion of our rice crop—which we should finish planting, if possible, in March and April—we must wait until June, when these birds wing their way to the north to seek for wheat and other small grain, and to find a softer sun. Again, when the rice has risen a few inches, the surface of the soil becomes dry about two weeks after withdrawing the water from the point flow; the grass is carefully picked from the rice drills, the intermediate space is lightly hoed, and the field is then left to dry two or three days, that life may be extinct in the grass that has either been drawn from the drills or hoed in the intermediate space. I then again flow the field. Many do not, until a second operation or hoeing has been gone through; but water costs nothing, and I like to use it when I have the power; because it gives time to carry on the same operation over the other fields. At this second flowing of the fields I would keep the water on ten days, taking care not to make it too deep, so as to drown the rice in the lower parts of the field, or to throw it down on the withdrawment of the water, which would be the case if the water was deep, or the rice run up too high. After the water is a second time withdrawn, the field is again carefully hoed, and this time deeper than at the first operation. When the fields are again clean, the water is for the third time taken upon the rice, to keep down the grass, and to give time to go through the several divisions in order; and at this flowing the water is kept on from twelve to fifteen days, and sometimes even twenty; so that the planter may be prepared to operate upon them, as he one by one successively withdraws the water. At this point the fields are finally, but carefully, picked and hoed, and these operations continued until the rice begins to joint low down; this is discovered by a horizontal stripe across the blade, or by pulling up and examining some plants of the rice. When these indications are discovered, the water is let on, and deepened upon the rice as it grows, and is kept as deep as the growth of the rice will admit, and is not again withdrawn until three or four days before you begin your harvest of each field, in succession; lest the wind or beating rain, on the withdrawment of the water, cause the rice to fall or lodge, which would diminish its quantity and injure its quality, and greatly add to the labor of harvesting.

During all these waterings, it is important to avail ourselves of every successive tide, to take water in at the river gate, and to allow it to weep through the small gate or trunk at the back of the field. Sometimes, when the water has been long upon your fields, a destructive worm makes its appearance at the roots of the rice. They can only be destroyed by a withdrawment of the water for a few days. Sometimes, when the fields have been long kept dry, a worm of another description, like the caterpillar, takes the blade. They can only be destroyed by letting the water in upon the field, whatever its condition may be, as to grass or otherwise.

It is this command of water at will that makes the value of our tide land. In the best lands in Lombardy, the water is sometimes the property of one person, and the land or soil of another; for the water is often brought for many miles, above or below the surface, as the level may require; and is sold on its passage right and left to the field owner, by him who owns the stream; the quantity is measured out, and consequently more sparingly used. The Italian husbandman or farmer must therefore retain it as long as possible, until it becomes too foul for use, or is exhaled by the sun; and from this cause it is that he sows his seed in the water, and weeds his rice by hand in the water, to the great injury of the laborers employed, generally women. Yet with all these disadvantages, rice lands in Lombardy rent from five to six pounds per acre.—*Arthur Young*

I have written more at length upon rice than might have been required for your book, only because in no country has so much rule and measure been applied to agricultural operations as in rice with us; and it only remains to add, that there is much difference of opinion upon the winter operations upon our rice lands. Many persons keep their fields dry during that period of the year, burn the stubble off, and plow them. Many object to plowing preparatory to drilling or trenching for the seed; for myself, I would and do plow with a small plough, with a single ox, in single yoke. One ox travels over these soft alluvial lands better than two, because when yoked double, one necessarily treads in the previous furrow. After plowing, it is necessary to harrow or roll the land; but to do this effectually, it should be left after the plowing, until quite dry. And here I will observe, that the roller is the only European instrument not introduced generally into our field operations; and yet I know of no instrument of more importance in agriculture, and no country where it is better adapted to the soil. In Europe, the harrow is only employed in summer fallow, to do what we depend upon the plow and hoe to do—to clean the land from grass roots, or to cover the seed after the broad cast sowing; here we employ it to break down the plow furrow, an operation much better effected by a heavy roller, which, passing over the new plowed land after it has been sufficiently exposed to the wind and frost, breaks down the clods, and reduces the field to that situation most proper for the seed. But again, if rolling the seed after sowing has been found beneficial in the cold and stiff soils of England, how much more so would it be in our climate, and with our light soils, that are more injured by the winds of our spring and by the sun of our summer, than by all the other causes that waste and destroy them? THOMAS SPALDING.

Sapelo, Nov. 26th, 1844.

SHEEP ON THE PRAIRIES.—No. 2.

Preparing Winter Quarters for Sheep.—The greatest difficulty to be encountered upon this soil is mud; you must therefore select a piece of ground that is dry and has good drainage, and then I will tell you how to build some cheap, good sheds.

Take common fence rails, and lay up two parallel lines about 10 or 20 inches apart, held together by cross ties, and about 4 1-2 feet high, and any desirable length. Fill in between the rails with old straw, trash, sods, or dirt, so as to make a wind-tight wall. About 8 feet from this fence-wall, set up crotches or forks to hold poles that will sustain rails, laid with one end upon the pole and the other on the fence-wall, which will form the back of the shed, and hereon stack the hay, which will cost from $1.00 to $1.25 per ton to place it there; and excellent feed it is for sheep. But the grand difficulty about these sheds is, that not providing hay enough, causes them to be uncovered just at that time in the spring that they are most needed.

Many are very anxious about selecting a good place on account of convenience to water, and in so doing, often lose other advantages. Now it is my opinion that a good well, or pump and trough right in the yard, is far preferable. And as with a flock of a thousand sheep, one man should be in constant attendance, he would be able to see that all had water from the pump, better then to allow them to run to the creek through mud, ice, and snow, to seek it themselves. It is generally conceded that one ton of hay will winter ten sheep. Racks that will answer a good purpose, can be made of rails laid up similar to the back wall of the shed. It is my opinion that grain given in moderate quantities, will all be paid for in the fleece.

Oats and corn will average about 15 to 20 cts. per bushel, which afford a very cheap feed. Potatoes, turnips, rutabagas, beets, and carrots, can be raised here extremely cheap. Our winters are generally dry, windy, and not much snow; but we always look for two or three in the course of the winter, real, genuine prairie snow-storms.

Feeding time commences the last of November and continues till March, and sometimes till first of April. Much feeding might be saved by providing pastures of blue grass, or timothy; and even to sow rye every summer for winter and spring feed, would be good economy, as it makes a most luxuriant growth. I would put the rams to the ewes from 20th November to 1st December.

Having now got your flock into winter quarters, I shall leave you to feed and water, promising to return before shearing time and assist to take off your fleece, provided your readers in the meantime are not disposed to fleece me, for inflicting so crude a sheepish article upon them. SOLON ROBINSON.

Lake Court House, In., Dec. 1844.

PORTRAITS OF ANIMALS.

If you will permit me, I would respectfully suggest to the owners of extra fine specimens of improved farm stock, the propriety of publishing portraits of their animals. I have no doubt they would find an abundance of purchasers at a remunerating price, if they were well got up and colored from life.(*a*) For myself, I would give more for a good portrait of such an animal as Mr. Oliver's bull Marius, or Mr. Prentice's Esterville, or Nell, or a group of fine Berkshires, than all the portraits of political candidates with which the world is at present flooded. And for decorating a farmer's parlor or library, if he has one, portraits of animals would be much more desirable and appropriate. AN AMATEUR.

Middlesex Co., Mass., Dec. 1844.

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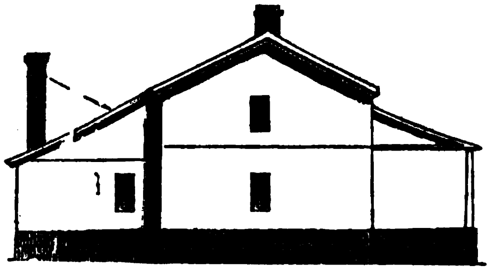
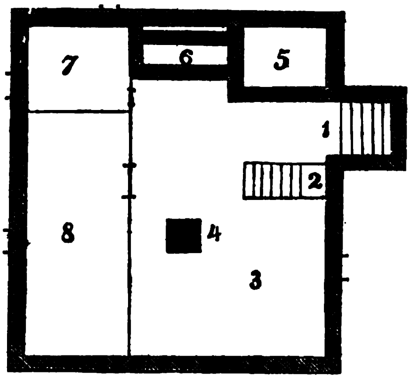
(*a*) We shall be happy to aid the owners of fine animals in carrying out the suggestions of our correspondent; and have no doubt that truthful colored engravings of such as are really good, and worthy the study of breeders, would find a profitable sale.

FARM BUILDINGS, No. 2.

I gave in your January number, pp. 22 and 23, Figs. 2 and 3, a front view of the above farm house, and a plan and description of the ground story. I now forward a gable end view of the house, and the plans of cellar and chamber.



Gable End of Farm House.—Fig. 6.



Plan of Cellar.—Fig. 7.

Explanation of Cellar, Fig. 7, the walls of which are 18 inches thick, and 7½ feet high, laid up in stone and mortar.

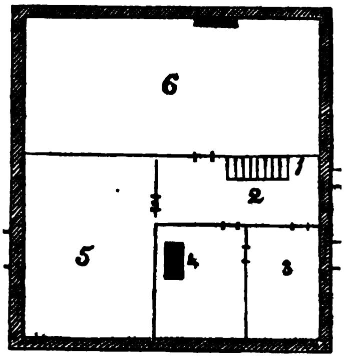
1. Outer steps, 5 feet wide, 10 inches rise, and 1 foot tread, with double shed door outside, and inner door at bottom.
2. Kitchen stairs and landing, 3 feet wide.
3. Principal root cellar, with bins, &c.
4. Chimney foundations, 5 feet square, made of stone laid in mortar.
5. Cistern, 7 feet square in the clear, made of stone walls, 18 inches thick, laid in water cement.
6. Ash-pit, and chimney foundation of stone.
7. Milk room, 14 feet by 10.
8. Apple, meat, and provision cellar, 28 feet by 14.

Explanation of Chamber Story, Fig. 8.

1. Chamber stairs, with landing at the head, and railing around the passage way.
2. Passage 19 feet by 8, with a swing window of four lights at the end.

3 and 4. Sleeping rooms, 14 feet by 10, and 14 feet by 9; a swing window of nine lights ventilating and lighting the room 4, from 3. A door window in the roof, over the piazza, would light this from the outside, and look well.

5. Large sleeping room for workmen, 22 feet by 15, with a flue in the chimney for a stove pipe.
6. Low garret room, over the kitchen, which is useful for different purposes.



Plan of Chamber Story.—Fig. 8.

This house is partially patch-work; the main part of which being 34 by 22 feet, one and a half stories high, and 13 feet posts, I removed from some distance, and placed over the cellar. I then added a *lean-to*, with a shed roof running off from the rear eaves of the main part to a height of 9 feet posts. This addition is 16 feet wide by 34 long. The front and rear roof have a pitch of one quarter, while the lean-to roof has a pitch of one sixth, giving it an agreeable slope to the eave trough. The piazza roof reaches to within 18 inches of the eaves on the front, and has a pitch of one sixth—the roof turned or hipped at the ends. The posts of the porch are young pin-oak trees (we have no pine nor cedar near), with the scraggy limbs left, and rounded 8 or 10 inches long, to support honeysuckles or climbing roses, which should always ornament a farm house or cottage. The sills of the house stand 2½ feet above the level of the ground.

The chambers of the house, three in number, are sufficiently high for lodging, and under the kitchen roof is a low shed room for garret storage. The main windows are 24 lights (12 light sash), of 8 by 10 glass. The chamber, or gable windows, are 15 lights, composed of 9 and 6 light sash. The lower bed-room window is also of 15 lights. The buttery window is a sliding one of 9 lights, and a small 4 light sliding window is over the sink in the kitchen. There is also a small swing window of 4 lights at the head of the chamber stairs. A small chimney runs from a stone foundation in the cellar up through the main body of the house, admitting a fire-place each to the front rooms, and a stove pipe flue for the principal chamber.

In the cellar, under the kitchen sink, is a stone cistern, 7 feet square, which will hold 70 barrels rain water, filled by a conductor from the eave trough in the rear. A pump inserted into this drains the water into the sink in the kitchen and wash room; a water cock through the cistern wall also draws it into the cellar for the use of the dairy room. In the cellar, beneath the kitchen fire-place and oven, is a stone ash pit, with an iron door, and a grated passage leading into it from one corner of the fire-place. This holds 80 bushels. The cellar partitions are made of planks 2 inches thick.

The porch of the house is very wide in proportion to its size. It is thus made for convenience, and makes a pleasant place to dine or sup in warm weather.

The cost of this dwelling complete and painted, aside from the washroom and woodhouse, was about $800—including them, $1,000. The whole group of buildings cost about $3,000.

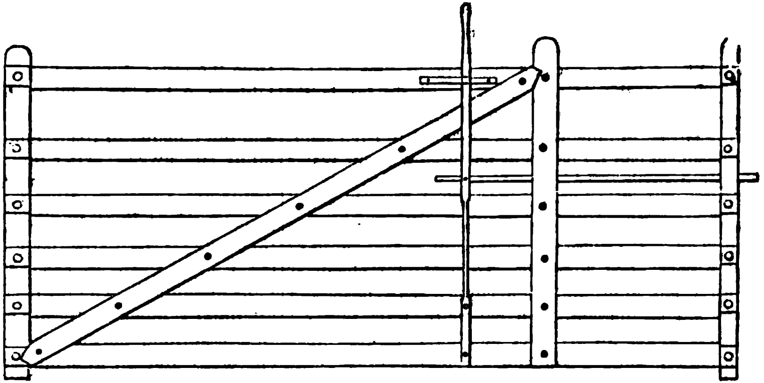
I shall give plans of other farm buildings hereafter, in which I shall study to combine comfort, convenience, and elegance in their arrangement.

L. F. ALLEN.

Black Rock, December, 1844.

FARM GATES.

THERE is no part of a farm enclosure which is more important than a good gate. In the hope of contributing something to this matter, I venture to submit the annexed plan as being the most perfect of many varieties that I have used, and many more that I have examined. I met it some years ago in Maryland, and I think nothing can excel it in all the requisites of a convenient and well constructed gate



FARM GATE.—FIG. 9.

Description. — This gate is 11 or 11½ feet wide, and 4½ feet high. There are two pieces of scantling, one for the back, 3 by 4, and the other for the front, 3 by 3. The bars or slats, six in number, are 4 inches wide and 1 inch thick, after being dressed. The braces and the uprights are of the same size and materials as the bars; two pieces of each, to be firmly secured by rivets, or large wrought nails to clinch. The bars are let into the scantlings by mortice and tenon, there being a shoulder of half an inch for each tenon on the lower side of the bar, except for the one at bottom; in this it is placed at the top to prevent the bar from being split by any obstruction underneath. The scantling and bars are secured to each other by ¾ inch pins. The spaces between the bars, counting from the bottom, are 3½, 4½, 5½, 7½, and 9 inches. The spring, for which, as indeed for the whole gate, nothing can be better than yellow pine, is 2 inches square at the lower end—the elastic part is 1½ by ¾ of an inch—and the upper end 1½ by 1. It is fastened to the two lower bars by half inch pins with shoulders, draw-bored and held tight by nails. The latch is 1½ by 1 inch, working through the space between the uprights, and a mortice in the front scantling; and the catch is fixed in such a manner that the latch shall play horizontally.

However well constructed the gate, the work is but half done unless it is well swung; and there is a rule for doing this, by following which no one can go amiss. The most suitable and convenient hinges are hooks and eyes, made of ¾ inch bar iron. The part containing the eye or hole, is simply a screw bolt, about 5½ inches long for the top pair, and 1½ inches longer for the bottom pair—with the addition also to the last, of a shoulder in the form of a screw tap, closely attached to the bolt at the distance of 2½ inches from the centre of the eye. The object of this shoulder is to resist the weight of the gate and prevent it from settling down; and the greater length from the shoulder to the eye is to give the gate a tendency, when opened, to close by its own gravity. The hook of the upper pair of hinges is to pass through the post, and be fastened by an iron key: that for the lower pair needs only to be driven into the post a sufficient depth. The posts should be from 10 to 12 inches square, dressed true the whole length, and let into the ground fully 5 or 5½ feet; and should be 6 inches higher than the frame of the gate The first post to be set is that to which the gate is to be attached, and it should stand *exactly* perpendicular. After being set (and the earth thoroughly rammed), place the gate against the post, so that the inner side of the post and the inner side of the gate-frame shall correspond. Bore the hole for the hook of the upper hinge, which will be about 5 inches from the inner side of the post; insert the hook and hang the gate upon it. The point of insertion for the lower hook will be 1½ inches farther from the inner edge of the post than the upper one, to allow for the greater length of the bolt of the bottom pair of hinges; and the lower hook should not be driven so near to the post as the upper one by ¾ of an inch. The other post is then to be set so that the gate will close evenly against it. When the gate is shut, the bars will be horizontal, but there will be a slight inclination of the gate when viewed in a line with the posts. As it is opened, it is gradually thrown out of plumb, in order to afford the gate a sufficient gravity to close of itself. If in time it should get somewhat out of swing, it may be put to rights again in a few moments by means of the screws.

A neat and simple cap for the posts is made out of three pieces of inch plank. The bottom piece may be an inch larger than the post, each way, with the edges rounded; the middle piece the size of the post, with square edges, and the top piece the size of the bottom, with the edges also rounded. The cap contributes very much to the durability of the post.

To fix a gate completely is not a light job; but it is well worth the trouble, for it will last and look well for 15 or 20 years. Indeed, I know of one which the owner assured me had been in constant use for 40 years.

The latch should always be kept well greased. An auger hole in the post to hold a piece of tallow, will afford the means of greasing it whenever it is necessary.

T. S. P.

Virginia, Dec. 12, 1844.

SHEEP HUSBANDRY.

Lands best adapted to the Growing of Sheep.—Somewhat high or rolling lands, producing a short, sweet grass, should be chosen, upon which to pasture sheep. Avoid marshy or wet lands. The grass thereon is not as sweet and natural for sheep, as on drier land. They are also apt to become diseased in their feet on wet lands, and do not thrive as well, and flies that trouble them most, seem more numerous about such grounds. Level grounds or plains, if sandy or gravelly, are generally good sheep pastures. Fields kept for sheep, should be allowed occasionally to recruit, by being vacated for one to two weeks, every two months or so. Sheep will do far better by a change of pasture, even though the time be short. Good running water is essential in each field, though sheep can do better in pastures without water than other stock.

Fences and Pass-ways.—Almost any kind of enclosure may be used except stone. If a farm be stony, and its proprietor desires to put them into fence, a very good kind may be made for sheep, if laid up 3 feet high; and then capped with posts and boards nailed thereon, or a course of rails laid on top, then staked firmly, and another course of rails laid upon the stakes. Gates to go in and out of fields for sheep, should always be used instead of bars. The common method of letting down some 4 or 6 bars, only gives a very narrow passage, and exposes the legs of the sheep to be broken, and the weak ones and lambs to fall and be run over. If, however, bars must be used, always take out two or three of the lower ones entirely, to let the sheep pass.

Number to be kept together.—About 100, or at most 200 sheep are as many as should be allowed to run together either in summer or winter.

Time to commence Foddering—Quantity of Hay necessary—Comfortable protection, &c.—Sheep, in the latitude of this State, should in ordinary seasons be taken from pasture and put upon hay as early as the 15th to the 25th of November. About 10 to 12 tons of hay, without grain, is requisite for 100 sheep. If they are to remain in the fields during winter to be foddered, each field should have sheds or barns of sufficient size for them to resort to either from cold or stormy weather. This not only ensures comfort, but it will require less to keep them, and save more lives through the inclement season. In a warmer latitude, this would doubtless be unnecessary, and the foddering from stacks might be practised. Hay ought not to be fed to them upon the ground, as it gets trampled upon, blows away, and is much wasted. Permanent racks, if within the barn, or movable, if without, should be used, sufficiently long that 20 sheep may feed on both sides.

Salting of sheep occasionally in winter as well as in summer, should not be forgotten.

Sheep to be chosen in Establishing a Flock.—In choosing and establishing a flock of sheep, the best of judgment should be exercised. Purity of blood in order to the evenness of quality of wool, as well as similarity of constitution, should be sought for. A good stout form, with full chest, generally ensures a good constitution. Those growing much wool upon them, are, of course, the most desirable. This does not solely apply as a gain in the profit of the wool grown, but gives greater protection to the sheep during winter, and the exposure to storms. For the object of growing wool (and for the promotion of which this article is particularly written), and getting up a large flock, I am decidedly of the opinion that no other kind compares with the Merino. Commence with the pure breed if possible, and if not, then get as near it as may be, and obtain pure bred rams to improve with.

Age suitable to be put to Breeding.—In nice breeding, ewes should never be suffered to be put to the buck until the fall after they are two years old, and bucks should be reserved to a like age except for a small number of ewes. Bucks should be kept apart from the ewes during summer, and generally, in this latitude, not allowed to go with ewes until the 15th to 25th of November. One buck if used at intervals, and not suffered to roam among the flock, may serve 60 to 100 ewes. After the *season* is over, and during said time, let him have 2 to 3 pints of oats per day, and plenty of clean hay and pure water. A little time prior to the ewes dropping their lambs, they should be particularly nourished and housed. Oil meal, mixed with ground oats, is a good feed, in light quantities. The oil meal may, however, not be intermixed much until after the lambs are brought. Before turning sheep to grass, clip the wool from and below the tail to keep them cleanly. At lambing time, the shepherd should be in constant care and attention. If there are appearances of rain, even if it be only an April shower, gather the sheep and young lambs into the barns and sheds, as a little chill, and that just before night comes, may eventually destroy both ewe and lamb.

When the lamb is about one month old, if a he one, have him castrated in the most simple manner, and apply cold water to rinse off the blood, and then a little lard. Do not take off the tails of these lambs at this time, as it will cause them to bleed too much, weaken, and possibly kill them; at about six weeks old, or sooner, let all lambs' tails be taken off, say 1 1-2 to 2 inches from the body. The best method to do this, is to place the lamb's stern against a block, with the tail lying upon it; then let the man holding the lamb move the loose skin upon his tail towards his body, and a second person cut off the tail with a 2 inch chisel and mallet at a blow. The skin will then move back again, and unite over the end of the bone.

Time and Manner of Washing.—The last of May or first of June is the best time to wash sheep. Select a convenient place not too far distant, where is clear running water. Leave the lambs at home in a barn, or close yard, during the time of washing the sheep. Those who are particularly nice, take about one to two hundred at a time to the washing place, and put them into the water, handling them carefully, and then place them back on the bank of the stream in the yard. After they commence steaming as it is termed, then put them in again for a final washing. This plan ensures very clean, white wool. Sheep should never be washed after noon, as they do not get dry. They are apt to take cold, and are very much injured by remaining wet during the following night. After washing, the sheep should be kept on clean grass lands, and not allowed to go into plowed fields, nor lie in dirty yards until shorn.

Time and Manner of Shearing—Doing up Wool.—Shearing may commence 6 to 8 days after washing, if the weather be fine. A small flock only should be taken to the shearing barn, or instead of this, many use a clean plat of grass ground enclosed for the purpose, which, however, is not as good as a clean, smooth floor. The confining of a sheep to the top of a table, to be shorn, or even cording the legs, as many do, is severe and unnecessary, as the sheep will remain far more quiet lying upon the side or back in the hands of the shearer. Shearing should be done with moderation and great care, making short clips—taking off the wool close and smooth, but never cut the skin, and especially the teats, or any delicate part of either sex. After sheep are shorn, they should be housed at night, for two or three successive nights, and at any time for several days after, should cold, stormy weather occur.

Manner of doing up Fleeces at Shearing.—The doing up of the fleeces should be in the same manner as the folding up of a common neckerchief, and, as may be termed, inside out, then doubled end to end. Then commence folding from the ends to the centre, pressing it close, and yet avoid the stretching of the wool. This will present as good wool as grows upon the sheep, and if all is done right, it will appear handsome and desirable. Small, smooth twine (and no other substitute), should be used for tying up the fleece, to be cast once or twice about it only, each way. Remove the wool from the shearing apartment, to a clean room, or a building designed expressly for it, and let it be entirely unexposed to dust.

Separation, Classification, and Treatment.—Sheep having now been shorn, next comes the classification and separation. In the first place, take out all the bucks and put them by themselves, assigning to them such fields as have the most sure and perfect enclosures; placing special marks upon all such as have given a large and desirable fleece, or have got strong and active lambs. Next, take out all old ewes, and such as have little wool on their bellies or give light fleeces. Mark them as such, and keep them in your best feed during the season of pasture. They will sell for some purpose, the better for having had good care; but they should not be bred from. Other ages and kinds may be marked for any special purpose you choose, such as 3 years old—wethers. Put them in good keep, and urge their fattening all the season for market. Ewes and lambs should also have much care, as the first summer's growth of the lamb, if well looked to, better ensures his life the following winter, gives him more growth of wool to protect him, and his maturity will be early effected. Lambs should be separated from their dams about the 20th of August, and put farther away than an adjoining field. They will early learn to take care of themselves, if placed in good feed, and will be the better prepared to eat hay in winter. An early separation is also necessary for the ewes, that they may recruit for the winter, with plenty of flesh and wool.

J. N. H.

Bennington, Vt., Jan'y, 1845.

Blight in Pear Trees.—Mr. Samuel Reeve, of Salem, N.J., writes us, Your article on blight in pear trees claims attention, in order that a preventive or remedy may be ascertained. I have been an observer of this blight in pear trees for several years, and find that in those trees which have stood where the roots had an even temperature and moisture, the blight has not made as great destruction in the branches, as in those trees that have stood where the ground was subject to drought and sudden wet during the growing season. In addition to this from Mr. Reeve, other correspondents inform us that they think a blight is caused by intense cold.

Dr. Kirtland, in the Western Farmer and Gardener, says, that the best remedy for blight is a bold and prompt amputation below the diseased parts, taking care to perform the operation as soon as the malady is manifested, and to burn the diseased limbs without delay.

PRESERVATION OF FRUITS BY CARBONIC ACID GAS.

It is a fact with which chemists have long been acquainted, but which I believe is not generally known, that carbonic acid gas possesses the property of preserving fruits placed in it for a considerable length of time, in nearly all their original freshness and flavor. The process is most too expensive to be employed on a very large scale, and best adapted to the smaller fruits, such as cherries, gooseberries, &c. I have sent you a description of the mode of generating the gas, thinking that if you saw fit to insert it in your journal, it might prove a source of amusement to some of your young readers who are fond of such kind of experiments.

The apparatus required is very simple. A common pint glass bottle, with a cork, through which passes tightly a bent pewter tube about half an inch in diameter and 12 or 15 inches long, another wide-mouthed pint glass bottle with cork (a ground glass stopper is best), and a pail or other suitable vessel of water is all that is required. In the bottle with the tube, place 2 oz. of fragments of white marble (limestone), and pour over them sufficient muriatic acid to cover them; quickly insert the cork with the tube attached, and dip the end of the tube beneath the surface of the water in the pail. A violent effervescence will immediately take place in the bottle, and numerous small bubbles will issue from the end of the tube, and rise through the water. These are bubbles of carbonic acid gas, which may be collected by taking the other bottle and sinking it, mouth upwards, in the pail, so that the atmospheric air will escape, and water take its place. When the bottle is full of water, carefully turn it mouth downwards, and steadily lift it, with its mouth still under water, until exactly over the end of the tube, from which the bubbles are issuing. The gas will rise through the water in the bottle; while the water in the bottle sinks into that contained in the pail. When the bottle is full of gas carefully insert the stopper, keeping the mouth still under water; when this is done, remove the bottle and place it upright on the table, then take the fruit you wish to preserve, and removing the stopper (the gas will not escape, it being heavier than air), drop it in the bottle until full or nearly so, stop tight, and place it in a cool dry place.

The process is easily conducted, and the acid may be purchased at the druggists for a trifling sum. The fruit will keep good a long time if the gas is not suffered to escape, and will preserve its freshness in an astonishing degree; and the satisfaction arising from the result, will amply repay the slight trouble and expense attending the operation.

Sing Sing, Dec. 10, 1844. J. M. K

WARREN'S HORSE-POWER AND THRESHER.

Directions for Using Warren's Improved Patent Horse-Power and Threshing Machines.—The lever, *a*, for the two horse-power, Fig. 1, should not be less than 18 or 19 feet long, of tough, springy wood, well fitted and securely fastened with two iron bolts well keyed into the lever-box, *b*. For a one horse-power, the lever may be half the length of that for the two horse-power, and fastened at one end into the lever-box so as to attach the horse to the other end.

The leather band, *c*, should not usually be less than 35 feet long and 3½ inches wide—it may be longer if necessary.

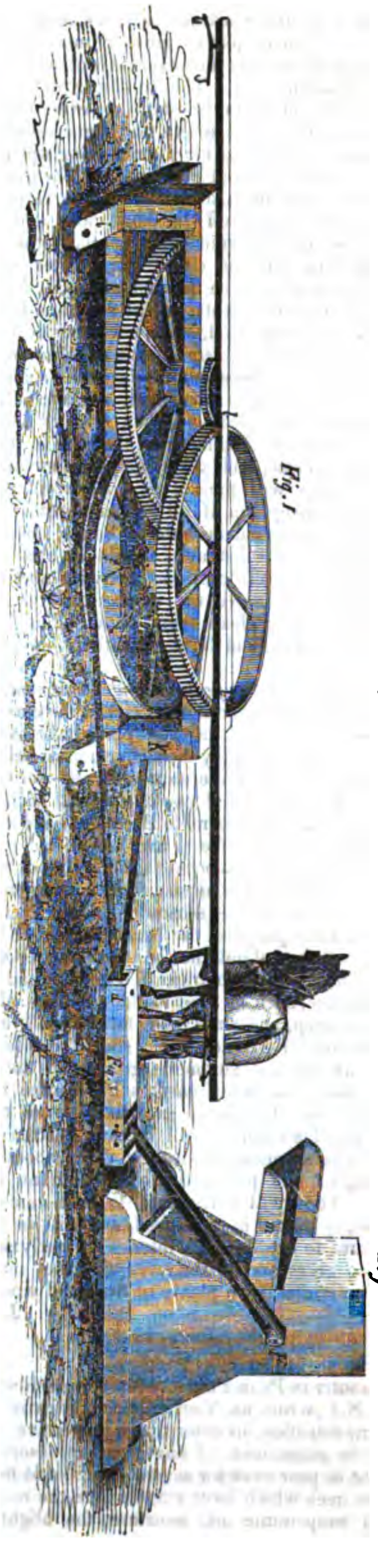
The machines may be placed as follows, viz.:—The horse-power, Fig. 1, and the pulley-box, Fig. 3, outside the barn, and the threshing machine, Fig. 2, inside any convenient distance, say about 4 feet. The pulley-box to be between the horse-power and thresher, so that the horses will pass over its centre as they walk their circle—that end of the pulley-box to be towards the horse-power which has the upright pulley, *d*, in it. The horse-power to be placed with the band-wheel, *g*, towards the thresher or barn. The left hand outer edge of the band-wheel of the horse-power (your face towards the barn), the inside of the pulley-box, and the whirl or pulley, *f*, of the thresher, should be on a straight line, so that the band will run true and not run off the whirl, *f*. This can be best done before the pulley-box and thresher are secured to their places, by passing one end of the band around the band-wheel from the left hand outer edge of said wheel into the pulley-box, so as not to touch either the box or the upright pulley, *d*, and by a half-twist through the box, and between the two horizontal pulleys, *e*, at the other end up on to the whirl, *f*, of the thresher. The other end of the band goes from the right hand edge of the band-wheel into the pulley-box next to the upright pulley, through the box, by a half-twist the same way as the other, so as to bring the flat sides of the band together, and thus prevent friction under both horizontal pulleys, *e*, (of course next to the lower pulley,) and so meets the other end of the band.

The pulley-box, Fig. 3, should be secured firm to a substantial plank or timber set in the ground secure. The horse-power, Fig. 1, should be set on two substantial pieces of timber or sleepers, which sleepers should be set in the ground firm and deep enough to bring the upper side of the bed-piece, *h*, of the horse-power on a level with the surface of the ground and on a horizontal line with the pulley-box, while the bottom cross-pieces, *i*, of the horse-power, rest firm on the sleepers. Four iron staples should be driven into these sleepers to come through the four morticed holes in the bottom cross-pieces of the horse-power; and to these the horse-power should be well keyed. Or, the horse-power may rest wholly on the ground without sleepers (if firm and level as before described) and be staked down.

It is very important to have the horse-power, Fig. 1, and pulley-box, Fig. 3, fixed firm and level as described, in their proper places—that is, these should always be on a horizontal line with each other, so that the end of the lever to which the horse is attached, will be the same distance from the ground all around, while the horse walks his circle—then it will make no difference if the ground is sloping.

Until the band is well stretched, the thresher, Fig. 2, may be secured firmly to its place by means of cleats; after the band is fully stretched, the thresher may be permanently fastened to the floor in any way preferred, by screw-bolts or otherwise. The band, of course, can be tightened by moving the thresher forward.

To prevent the possibility of the band from running up off the band-wheel, *g*, when in motion, and getting among the cogs of the other wheels, it will be well to nail a narrow board (as long or longer than the width or diameter of the



WARREN'S HORSE-POWER AND THRESHER—FIG. 10.

band-wheel), to the upright end-piece, *k*, of the horse-power towards the barn, just above the band so as to extend over and beyond it on both sides, as it comes from the wheel.

If the horse is not used to working in a circle, apply him to the lever a few moments before the band is put on. It is always best to work new machines for the first time a quarter or half an hour before threshing with them.

All the gudgeons or sockets to the wheels and pulleys must be oiled frequently with sperm or sweet oil; and the cogs of a new machine especially, should also be oiled or greased. Be particular to oil the shaft, *b*, on which the band-wheel, *g*, runs.

The grain should not be put in until the machine is in full operation, and should not be held back in feeding, but pushed forward. Spread the grain in the hopper, *m*, when feeding the thresher.

In setting the horse-power in motion, the tender should, in every instance, take hold of the band and start the machine as the horse moves, until the horse will go without jerking.

It is important to use steady horses. Do not unnecessarily expose the machines to bad weather. Keep them from rusting. Be careful in frosty weather. Use them in all respects as machines ought to be used—viz.: as though they could be put out of order, if abused.

If a barn-floor is 20 feet wide by 30 feet long, the machines can be used inside the barn.

These machines are made of good materials, and delivered in good order; and if used as directed, will not break nor easily get out of order; and are warranted to easily thresh, in a clean and thorough manner, at least 30 bushels of barley or oats per hour, and other small grain in proportion.

The thresher is set, as it is delivered, to thresh dry wheat and other grain.

Be particular to set the machines firm and correct. Put the band on right. Oil all parts, and put the machines in motion according to directions. Get up the motion gradually, and keep it up; for it is the speed of the thresher which threshes, more than the closeness of the beaters to the bars of the concave. If necessary, the cylinder can be raised by putting pieces of leather under the boxes.

Let the horses walk briskly, and go their circle about 4 times a minute. Feed the thresher lightly until you become familiar with working it; do not hold on to the grain when feeding, but throw it in by handsfull, that it may pass immediately through the machine, and spread the grain in the hopper while feeding.

Be particular to use new machines carefully. It would even be better to run them without doing any work for half a day, as a machine will work much easier after being used awhile.

The lever should be straight, but if it is not, let it crook upwards rather than down, that the ends may not be too low.

This horse-power is very compact, and can be loaded easily, together with the thresher, on to a wagon or cart, and carried to any place in the neighborhood. They have been greatly improved within a few years, and are now highly approved of by all who have recently used them. They are especially well calculated for the south, inasmuch as they are the most simple in construction, and least unlikely to get out of order; they are also easily managed by the hands there.

Price of the four horse-power alone $80; two horse, $50; one horse, $40. Four horse thresher, $30; two horse, $25; one horse, $20.

We can furnish any number of recommendations of these machines from the most respectable practical farmers and planters in different parts of the country, who have them now in use.

H. Bartlett & Co., successor to
L. Bostwick & Co., 146 Front st. N. Y.

HOME-MADE GUANO.—NO. I.

There has been a great deal said and written of late about Guano, and no small amount of money expended for its importation for the benefit of farmers. The rage for procuring this expensive fertilizer recalls to mind a facetious country dealer, who relates the following, among numerous instances of the gullibility of his customers. He had a number of pails hung around his store, and a somewhat dull genius coming in, he says, "Bill, if you will kick down one of those pails, you shall have it for 5 shillings." Bill takes him at his word, and after a good deal of floundering, succeeds in bringing one down. Another and another is secured and paid for, at a somewhat less price, in consequence of the increased difficulty of the achievement. "Well, Bill," says our fun-loving merchant, "you shall now have as many as you want *without kicking* for three shillings," which was the highest asking price.

I would not be understood as underrating the highest estimated value attached to this powerful manure, but only as wishing to point out substitutes which may be had, for, perhaps, less than one fourth its cost, and without the additional trouble of *kicking*.

Guano contains nearly all the elements of vegetable nutrition, in a highly concentrated form. The dung of all birds is the most valuable of manures, from the fact that their excrements contain the urine in combination with the fæces. The evanescent ammonia, and the easily dissolved sulphates, phosphates, and other salts, are thus embodied in a form which renders their escape more difficult; and while in this combination, it possesses a high degree of fertilizing power. Guano consists of the dung of sea-fowls, which is richer than such as live on land, in consequence of their food being entirely of fish or other marine substances; and it contains, in addition, all the feathers from their annual moultings, and the immense quantities with which sea-birds almost invariably line their nests; together with the innumerable carcasses and bones of such as have perished on their hatching-grounds, and become buried in the mass.

By the analysis of Dr. Ure, guano contains, of organic matter 50 per cent., of which 8 to 17 is given off in ammonia, by slow decomposition in the soil; pure phosphate of lime 25; other phosphates and ammonia now existing in it 13; and water but 11. It will readily be seen that this estimate, which is made from the best specimens, contains great value in a small compass, and such as fully to justify its use, if to be obtained at a price sufficiently moderate.

The inquiry in England, where the principal amount of guano has been imported and consumed, seems never to have been made, whether this was the *cheapest* method of procuring manure, but whether they could in any case afford to apply it. This, in consequence of the very high value of land, and all agricultural products in that country, they satisfied themselves they could do; and hence their immense importations, amounting, during the present year, it is said, to over a thousand ship loads. Had one step further been made in their investigation, they would have found that the fertilizing materials allowed to waste on their farms, or in the neighborhood, would furnish them with an equally valuable material, at a small part of the cost of "the far-fetched and dear bought" article. The value of the offal and manures wasted annually in London and other large cities and towns of England, undoubtedly far exceeds that of all the guano ever imported into that country.

Leaving out of consideration innumerable other materials, which are too generally allowed to be drained through ditches and sewers into our rivers, and thence carried hopelessly beyond our reach into the ocean, there are three great sources of supply for enriching our fields, similar in their general characteristics to guano, which, if carefully husbanded and applied, would add a constantly increasing fertility to our fields. These are bones, liquid, and household manures.

Bones, besides the oil and gelatine which they contain, which are valuable food for plants, especially the latter ingredient (containing as it does a considerable proportion of nitrogen and the salts), yield a large proportion of phosphate of lime, which is of the highest value to soils, being absorbed in considerable quantities by nearly all valuable products, as the grasses, clovers, lucerne, &c.; wheat and other grains; beans, peas, potatoes and most roots; and enters largely into milk, cheese, and other animal products. It is true that but a small portion of phosphate of lime (which is the principal part of the earth of bones) is annually abstracted from the soil, where it naturally exists; yet when fields have been depastured for a great number of years by growing animals, and especially by milch cows, without the addition of any other substances than the manure they have dropped, or the refuse vegetation which has decayed on the ground where it was produced, an immense deterioration has taken place. In Cheshire, England, where the dairy is a great object of attention, it has been found, that on pastures long used for this purpose, which had thereby become greatly impoverished, the addition of bone dust to the land had resulted in the immediate augmentation of the crops on the land, of 700 per cent.! Nor need this excite surprise, when it has been found by the strictest examination, that the milk of a single cow, will, in 75 years, exhaust the land where she has been pastured, of more than a ton of phosphate of lime, to say nothing of other substances. Land is even much more rapidly exhausted of phosphate of lime when subjected to close tillage. R. L. A.

Buffalo, January, 1845.

WESTERN CALENDAR FOR FEBRUARY.

In this month, sometimes earlier, sometimes later, the frosts are sufficiently out of the ground to begin plowing, and no time should be lost in commencing this operation. If the farmer suffers his plowing to get *behindhand*, he will find it very difficult to get his crop pitched in good time, and his work will be constantly pressing upon him before he is ready for it But he must be cautioned not to plow his ground *when too wet*. This will cause it to bake, and leave it in bad condition *for working*, and still worse condition for *producing a good crop*. He must wait patiently till his soil is in a proper state for the plow, and then hasten on the operation as rapidly as possible. Sod ground may be plowed without injury, where, if there were no sod, it would be entirely too wet. Let the ground be plowed when in a *proper condition*, and in a *proper manner*, and thus a foundation will be laid for a good crop, without unnecessary injury to the soil.

This month is generally more mild than January, but it is also more wet. Stock will therefore continue to require equal attention, as in the preceding month. February is usually a fine month for hemp breaking, and the brakes should be kept in motion every day that is suitable for the purpose. The tobacco planter must also be busy every damp day, in stripping out the residue of his crop. What he has previously stripped, if put in *wind rows*—tails lapped and heads out—should now be re-hanged, to get it in order for pressing in hogsheads, or for delivery in hand, if accustomed to sell that way. Bailing hemp and hauling manure should also be attended to, as recommended in the January calendar.

In this month rails should be split and hauled in place, for repairing fences; nor should the wood pile be suffered to disappear, but should be enlarged as circumstances may admit. Graziers, too, must be vigilant in attending to their herds, and keep them in *thriving* condition. If they do not *thrive*, it is difficult to keep them from *falling off*. A *stationary point* is almost impossible; and if suffered to lose flesh, a spring market for them is lost. This is a critical month for the wool grower. In latitude 38° to 40°, reserved blue grass pastures will, with little feeding, keep sheep in good heart till the first of February. Grass is now nearly gone, and the young grass cannot be depended upon till some time in March. During this month sheep should, therefore, have good keeping, or they will greatly fall off in flesh, and their clip of wool will be shortened. It would be highly beneficial to them to be fed with roots, such as beets, turnips, &c., during February.

In this month Irish potatoes for early use should be planted; also early garden peas, if the ground is in proper condition to work;—lettuce, radishes, &c., should be sown. Hemp spread in November and December, for winter rotting, will be ready to be taken up in this and early in the succeeding month. It should be closely attended to, and taken up as soon after it is sufficiently rotted as possible, as it is more or less injured by every rain which falls after it is sufficiently watered. It should be put in shocks large enough to make from 50 to 75 pounds of lint. If the hemp is tall, the shock may contain enough to produce the latter quantity. Large shocks, if well put up, are best, because less liable to be blown down by the wind, and having proportionably less outside exposed to the weather, there will be less loss of lint before they are broke out. In this month the nights are still long, and the farmers would do well to look to the recommendations of the January calendar; nor should they neglect the advice there given in relation to their children. A. Beatty

Prospect Hill, Ky.

Ladies' Department.

MINCE-PIE.

I see, Mr. Allen, a page you reserve
For ladies, contributing aid;
How consoling the thought to be mixed up with cows,
And of cattle form one of a head.

Well, I've thought a good deal, on authorship bent,
On what subject my hand I should try,
And decided at last that your readers I'd treat,
With a hint to make English mince-pie.

Dear pie of my country! beyond all compare;
Of tartlets and sweets you're the prince;
E'en pumpkins, the boast of New England's cuisine,
Must yield to our old English mince!

First, take three pounds of apples fine,
These mince, and pare, and core;
Of suet, fresh, and raisins, stoned,
Three pounds of each add more.
Of cinnamon, a quarter ounce,
And just as much of mace;
Eight cloves, in finest powder crushed,
With these ingredients place;
Three-fourths of an ounce of salt; three pounds
White sugar powdered fine;
To the rinds and juice of lemons two,
Add a pint of good port wine.
Of best cognac there needs a pint;
All which, placed in a pan,
With care and industry mix well,
With all the pains you can.
Have ready washed and dried, four pounds
Of currants; and candied fruit,
And in the pie your care prepares,
In good proportions put.

Thus ends my receipt for this delicate pie;
Mind, of beef and of tongue no aid call in.
And now, having finished the whole I've to say,
I wish you good-bye, Mr. Allen.

L. F. R.

MATTERS OF EXPERIENCE.

BY MRS. KIRKLAND.

We said something last month, about the pleasures and advantages of literature, and the possibility of those pleasures and advantages being enjoyed by the families of our thriving farmers. We wish to persuade the young people whom Providence has placed in a position so favorable to the cultivation of the higher nature, that industry and activity in business need not prevent a due attention to books, to flowers, and to other things conducive at once to utility and elegance. We may perhaps do this better by citing examples, than by the mere stringing together of dry precepts, so we will proceed with our little sketch of the daughters of Farmer Dickson.

It is not unusual in families where some striking error or defect has produced evident ill consequences, to see an opposite course pursued by the younger members. Thus sometimes a very careless and slatternly mother will have the neatest and most orderly daughter; or a coarse one, a family noted for refinement and manners. A drunken, brutal father, has sometimes struck such horror into the hearts of his family, that his sons would, by the mere force of contrast, be unusually circumspect and moral; or an undutiful elder brother will seem the living warning which keeps all the rest of the family in the most obedient and affectionate habits. It may have been on some principle similar to this, that Ellen Dickson became so different from her three elder sisters, and endeavored to make her little sister, Lizzie, very different too. Ellen had always been more disposed to go to school than the others, and instead of taking advantage of every excuse for remaining at home as she saw them do, she had attended steadily whenever she could, and by the time she was sixteen, she had obtained a tolerable knowledge of the plain branches taught in that part of the country; and, what was still better, she had imbibed a desire to know something more. We might say much on this same subject of country schools, both as regards scholars and teachers; much of the wretched practice of *deducting* from the tuition money all the days that the scholar chooses to stay away—a practice which is directly calculated to lead to irregular attendance; much of the meagre and soulless character of too large a portion of the teaching, which inspires no desire of knowledge, but a silly emulation in the lowest and most mechanical things learned. We might dilate feelingly, for we have thought much, upon the little chance there is, even for a well disposed and intelligent young person to learn anything beyond mere words, at most of our district schools. But we forbear, knowing that the subject is too important for a casual notice. We shall only say that Ellen Dickson was unusually fortunate in her opportunities, and had the sense to make good use of them. There was a library too, not very well chosen, but still, better than none at all, from which she was in the habit of drawing books. Her sisters often reproved her for being *idle* while they were at work; but she felt that reading was not idleness, and that when she had performed what was required of her, it could not be wrong to attempt to learn something. So it became her first object to ascertain what were her duties at home; no easy matter, where incessant toil was considered synonymous with virtue. This, however, by the aid of her father, she accomplished; and then, by dint of early rising and earnest industry, she had a good portion of the day at her own command.

One of the first fruits of her studies was some insight into the habits of bees; and she soon persuaded her father to substitute properly made hives for the ragged, unsightly, and unprofitable ones which had long disgraced an old shed near the barn-yard. The new hives were placed in a sheltered corner of the garden, under a shed, opening to the east for the sake of the early sun and dew, with good store of roses, white and red, sweet violets, flowery thyme, and honeysuckle, within reach; while the ample orchard afforded the fruit trees, and the door-yard the white-clover blossoms, which, after all, the humming people seem to fancy as much as rarer sweets. Near this favorite spot, under a great old apple-tree, and within sound of the pretty rill that trickled through the milk-house, would Ellen sit, book in hand, alternately watching the bees and reading, often attended by little Lizzie, who, playful as she was, could yet be persuaded, sometimes, to listen to what interested her sister.

When it was time to gather the honey, Mr. Dickson was so well pleased with the great improvement both in quantity and quality, that he gave Ellen a handsome share of the extra profit, to be applied in any way she might prefer. This afforded her an important addition to her little shelf of books, and another luxury which she had long coveted.

In the village to which she often went with her sisters to make the necessary purchases for spring and autumn, she had observed green-house plants for sale, and the roses and geraniums which bloomed so beautifully, while all without was so dreary, had attracted her beyond anything she had ever seen. A rose and a geranium were purchased with the remnant of the bee money, and placed in the sitting-room, where a sunny window promised well for such pets. The care of these supplied the place of the beloved bees, during the short winter days when there was little time for anything but household affairs, during the hours of daylight. In the evenings, the delightful long evenings, while Polly spun flax on the small wheel, and the other sisters were knitting stockings or sewing little diamonds and hexagons into patch-work, Ellen, who had learned *to knit and read at once*, would sometimes obtain permission to read aloud; and after she had read her father to sleep with a few paragraphs of the weekly paper, or an agricultural monthly for which she had persuaded him to subscribe, she would get one of her own favorite volumes, the Tales of a Grandfather, perhaps, or one of Mary Howitt's stories, and try to interest her sisters, while her own fingers flew almost as busily as theirs. By such means as these, a decided improvement manifested itself in the family, and Ellen had the satisfaction of seeing a taste for reading gradually growing among them. Little Lizzie was nicely dressed and sent to school in ample time every morning, instead of being suffered to lounge about at home until it was too late to go. Sarah bought Tales of American History for her own reading; and she too found that scarce a pair less of stockings need be knit in the course of the winter, while she occupied her eyes with a well printed book. Polly was almost too old to learn so easily; but even she was willing to *hear*, provided a *story* was the thing read; and in the matter of roses and geraniums, she soon came to love them, to take care of them, and to be as anxious to increase their stock as either of the other girls.

Jane, the third daughter, whom we described as being more fond of dress than the others, was less inclined to improvement than either of them. When once the passion for personal adornment has seized on a female mind, there is scarce anything more hopeless than an attempt to induce a taste for better things. She still laid out all that her father allowed her on tasteless finery, and her character was so far consistent, that she could hardly endure to hear anything read but the most romantic novels. We may easily imagine that Jane's judgment did not ripen very rapidly under such influences; and there is no saying what silly things she might have done, had not Providence ordered a blessing for the Dickson family, in one of those questionable shapes which it often chooses for our improvement.

The harvest was over, and the great barn was stored almost to bursting, when a violent thunder-storm, such as sometimes occurs late in the season, came on in the afternoon. The barn was struck by lightning and set on fire; but the large number of men who had been employed in the harvest being still on the ground, the fire was subdued, after very great exertions, before any very extensive damage had ensued. All went weary to bed, and slept so soundly that they remained totally unconscious that the house itself was burning, until they were awakened by a suffocating smoke, and found themselves in such imminent peril, that they were glad to escape with life; leaving almost everything that the house contained, to the mercy of the flames.

In the confusion of extinguishing the fire which threatened the destruction of the barn, nobody had thought of a quantity of lime which had been stored, for barn-yard purposes, close against a line of fence which communicated with the house. Being covered with a rough shed, the lime had not been visible; but the deluge of rain had reached it in sufficient quantities to produce combustion, and hence the loss of the house. Whether ignorance or carelessness produced this result, it was, or seemed, disastrous enough for the time.

Poor Polly's stores of bedding and stockings, long hoarded for a bridal which seemed yet far distant, were all scattered to the winds. The feather-beds, to make which she had assiduously *plucked live geese* year after year, were melted into an indistinguishable mass with the butter and cheese on which she and Sarah so prided themselves; and Jane's gaudy dresses blazed literally, as they had before done figuratively. Ellen's little treasures went with the rest; but her taste for such things remaining in full force, and her acquirements being those of the mind, she lost far less than the others, and she possessed, moreover, a degree of judgment and resolution which proved invaluable to the family under these circumstances.

The house was to be rebuilt, of course. The loss of a house, however comfortable, does not prostrate a thriving farmer, and Mr. Dickson was not so improvident as not to have been insured to a considerable amount. So, although the girls' handiwork was irrecoverably lost, their father's property had not suffered materially, and the taste and ingenuity of the daughters was called into action in planning the new house; or, rather in making suggestions and additions to the plan which they were wise enough to procure from a professional man. A good warm exposure for the winter sitting-room was thought of, and a small, sunny nook for the plants, communicating so easily with the great kitchen chimney that heat was readily obtained, with scarce any additional expense. A light piazza at once graced and shaded the windows of the best parlor, which was seldom used except in summer; and this room opened by a sash door, directly into the garden. These, and many other improvements, soon reconciled all to the loss of the homely old house; and the gradual refinement of the family went on more rapidly than ever, under circumstances so much more favorable. The girls lost none of their industry, but they learned to exercise it with more judgment. They became convinced that *all effort should have some determinate end;* that to go on laboring and sacrificing one's time to no valuable purpose, is just as foolish when the object is useless bedquilts and stockings, as when it is something which wears a less questionable shape. Even in their household operations, they find a reference to books highly useful; and the various records of modern improvement have shown them how much time and trouble they formerly wasted for want of the knowledge which was, even then, familiar to the better instructed.

Boys' Department.

LIME.—I perceive, in looking over the January number of the Agriculturist, that a department is assigned for the boys. Being very fond of children, I beg to be allowed from time to time to have a short talk with them in these columns.

My young friends, you have often seen and heard of *lime*. The ladies beautify their houses, and make them pure and healthy by whitewashing their walls with a wash made by slacking fresh burned lime in water. How neat a farmer's fence looks that has been lately whitewashed. Boys, if you have a fowl house, you should whitewash it often; for it makes it look well, and destroys the vermin. As soon as your fathers will permit you to go about the stables, and you have any care of them, you must not fail to whitewash all the stalls for the cattle and horses. It not only makes the stables more healthy, but looks nice. I would whitewash my piggery also, for a pig likes a clean house to lie in, as well as a horse or cow.

Well, boys, what is lime? Would you believe that pure lime is a metal? This was discovered by Sir Humphrey Davy, in England, by means of a powerful galvanic battery, which I shall explain to you one of these days. Sir Humphrey obtained the pure metal, which is of a white color. This metal has a strong attraction for oxygen gas, and when they combine, the *oxide of lime* is formed. This is the quicklime of which whitewash is made. There are a good many kinds of lime that you will read about, and I want you to recollect that the base, or principal part, is a metal. To convince you of this, it is well known that in 28 parts or pounds of quick lime, there are 20 of metal lime, and 8 of oxygen gas. The most important kinds of lime (or *salts of lime*, as they are called by chemists), for the young farmer to understand, are the carbonate of lime, and the sulphate of lime, or plaster of Paris.

The Carbonate of Lime is composed of carbonic acid and oxide of lime, and it exists in the form of common limestone. Chalk is also carbonate of lime; so is marble, and oyster and clam shells, &c. Now, to obtain the oxide of lime or quicklime for mortar, whitewash, &c., and to enrich worn out farms, they take the limestone from quarries, and burn it in lime kilns. This drives all the carbonic acid away, and leaves the oxide or quick lime. It is now called caustic lime, because of its burning properties. A man fell into a large vat, where they were making mortar of this lime; he was immediately taken out, but was so severely scalded, that most of his skin was blistered, and one eye was destroyed.

If you take some of this quick lime, and put it in a pitcher, and pour water on it, it will slack; let it stand for a while, and settle, and then pour off the transparent portion. This is *lime-water*. You must now put this in bottles and cork them, for the doctor says that it is a good remedy for a sour stomach, in case you should eat too many apples at any time—as well as a remedy for summer complaint and dyspepsia. You should know also that lime-water and linseed or olive oil mixed together make one of the best applications for a burn. Wet linen rags with it, and apply it to the burn. Don't take these rags off, but keep them wet constantly with the wash. You can use it with the feather end of a quill. But why should you cork it up in the bottles? Because the lime water has such an attraction for carbonic acid gas, that it will combine with it if it can get at it: as this gas is always floating in the air, if the water is exposed, it will unite with the lime. Pour a little out in a tumbler, and let it stand awhile. You will see a scum on the top; this is the carbonate of lime, formed in that way by attracting the carbonic acid from the air. Try another experiment. Take some clear lime water, introduce a tube in it—a quill will answer—now blow through the quill into it. You will soon perceive the water to become turbid. The white flakes are the carbonate of lime. What caused this? Why your breath. When you breathe you inhale atmospheric air, which is composed of oxygen and nitrogen; but when you exhale or expel it from the lungs, it is carbonic acid; and as the lime has a strong desire to unite with it, the carbonate is formed.

The *Sulphate of Lime*, or Plaster of Paris, is composed of sulphuric acid (oil of vitriol), and quick lime. This is of the greatest value to farmers, and is extensively used by them to enrich their lands. When it was first introduced in this country, such a prejudice existed against it that few if any farmers would use it. It was brought from Paris. Dr. Franklin, to show what it would do, sowed on a field some plaster, so as to form these words, "This was sown with plaster;" and when the grass grew, the sentence could be distinctly read, in consequence of the grass having a larger growth, and being so much better Some would not use it, because it had no bad smell or taste! It is now used not only by sowing it on the land, but also to improve the quality of manure; for it has been found to prevent all those offensive gases from escaping from the yard and stables, which are the richest and most valuable parts of the manure.

Boys, you will hear many stories about this plaster. Some will say it does so much good that they would not do without it if they had to pay any price for it. Others will say it injures their land. If you will watch very close, you will find that very few understand the nature of this substance. It is like many other similar articles, which we will talk about hereafter. The earth must have a certain quantity of it to produce good crops. Now, if it does not exist, or only in small quantities, then if you add it on the right kind of crops (see note, page 52 of this No.) it will do much good. But if it exists already abundantly in the soil, then if you add any more, it either does no good, or burns (as farmers say) the crops. As this is somewhat expensive, I want you, my young friends, when you go on your farms, to try the experiment whether your land wants it or not, before you use it; for I am convinced many are now using this article without its being of any benefit to their farms. Your friend, PLAYMATE.

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CATTLE.—If any of our young readers are entrusted with the care of cattle, let them see that they are kept clean now and well housed and fed, for February is usually the coldest month of the year. Don't let it be said of your fathers, when spring comes, that they are good farmers in the following sense. "Jake, is your master a good farmer?" "O yes, fussrate farmer—he make two crops in one year." "How is that, Jake?" "Why, he sell all de hay in de fall, and make money once—den in de spring he sell de hides of de cattle that die for want of de hay, and make money twice!"

Be kind also to the cattle, and instead of kicks and blows, and loud abuse, give them mild words, a gentle patting, good currying, and plenty of water, two or three times a day. Thus treated, the cattle will like you, and gratefully repay all this attention (if of a good breed), by growing rapidly, or doing a great deal of work. The cows, too, will supply you with plenty of milk and butter.

CHINESE GOOSE.—Fig. 11.

THIS bird, among geese, is what the clean-legged bantams are among fowls—the smallest, the finest, and the most light, airy, and graceful of its tribe. The Chinese goose is as blood-like and beautiful as an Arabian horse, and can as easily be known, and a bad cross detected in it. Will you believe it, boys, we have been trying to get some of these *pure* bred for the past four months, but have not yet succeeded in doing so? All that have been offered us were a cross with the Poland, African, or Guinea goose, which completely spoils it for our eye. We wish that people would have the good sense and taste to keep birds, as well as beasts, of a pure blood.

The bills and legs of the Chinese goose are of a dark color, amounting almost to a black; the wings and tail of a slate, tinged with grey; the back of the neck a dark streak; underneath, and along the breast, a pure ash predominates, growing lighter under the belly and the tail. They are hardy, lively birds, and as great layers as ducks. They usually begin to drop their eggs early in February, and will continue laying from two to four months, according as they are fed and cared for. We saw a beautiful pair of these birds at the Agricultural show, at Poughkeepsie, last fall, and would be greatly obliged to the owner of them if he would sell us a few of their offspring the coming season—we wish them for some of our junior friends.

RABBITS.—These are easily taken alive, by soaking their favorite food, parsley, in strong rum or brandy. A similar method is employed in catching small birds, with steeped seed. They, like rabbits, are so intoxicated with the spirit, that there is no difficulty in obtaining as many as you wish.

THE GREATEST EGG-LAYING STORY ON RECORD—It is frequently asserted that poultry is more plague than profit. But this, boys, like many other assertions, must be taken with proper qualifications. We contend, if you have a good breed of fowls, take proper care of them, and are near a reasonably good market, that the keeping of fowls is as profitable a business for the amount of capital invested in it, as a farmer's boy, or the women of a family, can be engaged in. To prove this we will cite one example. When we were at the pleasant farm, last September, of Messrs. H. & J. Carpenter, of Poughkeepsie, their brother, Mr. Gerard Carpenter, showed us an account of the number of eggs laid by their hens up to that time from the 1st of January. It was so exact and satisfactory, that we requested him to continue it to the end of the year, which he has very obligingly done, and now here is the result.

He commenced on the 1st of January, 1844, with 67 hens and 3 cocks. Out of this flock were sold and lost by the 1st of May, 7 hens; from that time up to the 16th September they lost 2 more. Since then we are not informed what the losses have been. It would probably be fair to set down the average stock of hens during the year at 60 head. These laid in the following months, all of which were consumed by the family or sold:

In January,	191	eggs.	In July,	838	eggs
February,	400	"	August,	740	"
March,	892	"	September	540	"
April,	1037	"	October,	113	"
May,	1086	"	November,	21	"
June,	700	"	December,—none.		
				6558	eggs.

In addition to this number, it is supposed full 300 were used for sitting, got lost, broken, or spoiled, which are not taken into the above account. The average price that the eggs brought at Poughkeepsie was $1 per hundred, which makes their value $65 58
Chickens raised 101, at 20 cts. each, 20 20

$85 78

We suppose that this flock of hens may have consumed grain enough during the year, equivalent to 70 bushels of corn. This is allowing ¼ of a gill per day throughout the year to the flock of hens, and nothing to rear the chickens; but as, during the summer, hens that have the range of a farm need no feeding, this quantity of grain is considered ample for their support.

At 50 cents per bushel for the corn, this would make the expense of their feed, $35 00, which, deducted from the value of eggs and chickens, leaves a nett profit of $50 78. It is considered that the manure of the hens, and the insects they destroy during the season, are equivalent to taking care of them.

The actual feed of the above hens was as much corn mixed with a few oats as they would eat; the grain being placed where they could always get at it. In the winter they had a little meat. They were not confined at all, and had access to lime and gravel while the ground was covered with snow. Their roosting-place was comfortably enclosed under the barn.

FOREIGN AGRICULTURAL NEWS.

By the steam ship Cambria, we are in receipt of our European journals to the 4th January.

MARKETS.—*Ashes* have slightly declined. *Cotton*, we are rejoiced to see, has advanced during December, from ⅛d. to ¼d. per lb. The market is firm, and though the amount of the present large crop was pretty shrewdly guessed at in England, it was thought in consequence of the increased consumption, and active demand for goods, that there could be no further decline the present year in this staple article. Stock on hand at Liverpool on the 1st of January, 749,580 bales against 653,900 same time last year. The consumption for the coming year in Great Britain is estimated at full 1,500,000 bales, so that there is only a six months supply in market—not a bale more than they ought to have. *Flour* continues dull. *Naval Stores* have advanced. *Provisions*.—The trade in these is continually on the increase. Beef, Pork, and Lard in good demand. The best brands of American Beef are now preferred to Irish. So much for our improved system of packing. Butter and Cheese, advanced. *Rice* in good request. *Seeds*, especially Clover and Flaxseed, quite active. *Tallow*, brisk. *Tobacco*, without change.

Money is abandant at 2 to 2½ per cent. per annum.

American Stocks.—Considerable is doing at an advance. The Illinois commissioners have returned in the Cambria, having succeeded in getting the loan filled up.

Trade has rarely ever been better, and Great Britain seems to be advancing in wealth, power, and intelligence, beyond all precedence. The commerce with China proves profitable, and in many things has more than doubled the past year.

The Weather has been intensely cold throughout Europe. The celebrated astronomer Arago, predicted an uncommonly severe winter. When the weather is unusually cold in Europe, we have generally noticed that it was mild here, and so *vice versâ*.

Cocoa-nut Fibre, for Folding Sheep, is found to last much longer than the tarred hemp netting; it is also more easily handled than the common hurdles.

Number of Domestic Animals in Austria —We observe by the last census, just issued by the Minister of Commerce, that Austria, in 1843, possessed 2,300,000 horses, 10,400,000 cattle, 25,000,000 sheep (yielding 55,000,000 lbs. of wool), 5,800,000 swine, and 1,245,000 goats.

Cæsarean Operation.—The following circumstance occurred on the farm of Mr. H. Mason, at Comberton, Herefordshire. A neighbor's cow, near calving, in making her way through the hedge, had the misfortune to break her leg She was immediately killed on the spot, and a fine bull calf extracted. The calf is now alive and doing well

Strawberries in December.—There is now growing in Mr. Richards's garden, at Bridgnorth, a bunch of strawberries (Keen's seedlings). The largest measures three and a half inches in circumference, and is well colored. They have had no protection, except being covered with a hand glass since the nights have been frosty.

Oaks in Hyacinth Glasses —If an acorn be left for some weeks suspended by a string, at about half an inch over the surface of some water contained in a hyacinth glass, it will throw down long white roots, whilst its stem will rise upwards, and become decorated with bright green and delicate leaves. When it grows over the top of a hyacinth glass, it looks a very pretty object.

A College of Chemistry is proposed for promoting this science, and its application to agriculture, arts, manufactures and medicine.

More Large Potatoes.—We gave a record of big potatoes in our last, but here is something that beats all we have yet seen. We suspect, however, that the printer meant eight and not eighteen pounds. "A kidney potato weighing eighteen pounds, was taken on the 9th ult., from the garden of Mr. John Diggles, Woodbine Cottage, Cheapside, near Burnley."

Smithfield Show of Fat Cattle.—The 47th exhibition of fat cattle took place during the first and second weeks of December. An increased attention seems to have been paid to it—the number of visitors exceed 60,000. The Queen, for the first time, was present at this show, attended by Prince Albert, and several of her foreign visitors. The royal party examined the animals and all other matters with much attention, kindly patting the fat oxen and sheep as they walked along. We wish American ladies in this respect would take example of the Queen of England. Prince Albert, and many of the most distinguished noblemen were exhibitors, although they were not quite as fortunate as the plain farmers in obtaining prizes. The first prize of £20, and silver medal to the breeder, and gold medal as the best beast in any of the classes, was awarded to Mr Henry Brown, of Leicestershire, for a four years and six months old Durham cow.

Manufactured Goods in France.—It is said there are enough of them on hand at present in France to supply the market for three years.

Exports of Wheat and Flour from Canada to Great Britain and Ireland.—From 11th October, 1843, to 5th July last, these amounted to 145,598 bushels of wheat, and 133,256 barrels of flour. During the same period, 175,960 bushels of wheat were imported into Canada from the United States.

To Force Early Grass.—A light top-dressing of guano, in March, is said to have the effect of forcing grass unusually early in the spring.

Fat Tail Sheep.—Those which weigh dressed not over 50 to 60 lbs., have tails weighing 14 to 18 lbs.

Tussac-Grass.—At the Horticultural Society's Garden, the Tussac-grass recently received from the Falkland islands has vegetated freely in a peaty soil.

India Rubber for Paving Stables is said to be unequalled by anything ever yet tried for this purpose. It prevents the lodging of stale matters, and their consequent noxious exhalations. It requires little litter, and preserves the knees and other parts of the horse from injuries which are apt to be received in stone paved stables. By a little precaution, the ammonia which now exhales to the injury of the horse's health, may be collected and sold as a manure, from 2*l.* to 3*l.* per horse per annum. The stables at Woolwich dock-yard have been paved with this material for upwards of two years, and are superior in point of cleanliness, freedom of smell, and healthiness, to what they were previous to laying down the elastic pavement.

Utility of Rooks.— A flight of locusts visited Craven, and they were so numerous as to create considerable alarm among the farmers of the district. They were soon, however, relieved from their anxiety, for the rooks flocked in from all quarters by thousands and tens of thousands, and devoured them so greedily that they were all destroyed in a very short time. It was stated in the newspapers, a year or two back, that there was such an enormous quantity of caterpillars upon Skiddaw, that they devoured all the vegetation on the mountain, and people were apprehensive they would attack the crops in the inclosed lands; but the rooks (which are fond of high ground in the summer) having discovered them, in a very short time put an end to their ravages.

Death of M. Fellenburg.—The celebrated founder of the Hofwyl Agricultural School, in Switzerland, M. Fellenburg, died on the 21st of December. He has done much good in his day, and through his school has greatly improved the science and practice of agriculture, not only in Switzerland, but in the neighboring provinces of France and Germany.

Mammoth Gooseberry.—Mr. T. Gibson, of Nottingham, grew a gooseberry, last season, weighing 35 dwts, 12 grains. It is called the "champion berry of England." The members of the Horticultural Society intend presenting Mr. G. with a piece of plate for growing such an enormous gooseberry.

To kill American Blight.—Apply spirits of tar on the trees and shrubs with a painter's brush, and take care to rub the material well into all the crevices

Singular Agricultural Fact.—In the last week of April, Mr. H. Cayzer, of Mawgan in Pyder, sowed two fields of barley, but the dry weather which followed prevented a large portion of the seed from germinating. The seed which did germinate, however, produced a crop, which was cut and carried at the usual time; after which the rain that fell in the latter part of the summer caused the remaining seed to grow, and Mr. Cayzer has now cut the second crop for the season from the same two fields. The latter crop is a fair one, and, if there is favorable weather, will turn out a good sample.

The Heart changed Sides.—Some students, at Madrid, lately dissected a body, and found *the heart on the right side*. This reminds us of a calf lately killed by Mr. Barnes, of Buffalo, which had not only the heart, but the liver and sweetbread on the right side. It was said to be in perfect health at the time, and made good veal.

Great Destruction of Worms.—The gentlemen connected with the Bowling Green, having long been annoyed with the eruptions made by the worms, had recourse to an experiment tried a few years ago, which consisted in merely pouring a mixture of water and corrosive sublimate over the ground, which brought them to the surface; and having a number of boys picking them up, they gathered together eleven stones (154 lbs.) in an area of 45 yards by 32. It may be in the recollection of some of our readers that twenty stones (280 lbs.) were gathered from the same ground four years ago.

Potato Anniversary.—The 300th anniversary of the introduction of potatoes into Europe was lately celebrated at Munich.

Chloride of Lime for steeping Seeds.—In Germany it is considered of great efficacy. French beans steeped four hours in a solution of a quarter of an ounce of chloride in a gallon of water, were up and in rough leaf before others sown at the same time were above ground, and an equal difference was observable with other vegetables.

Destruction of the Gooseberry Caterpillar by Salt.—To destroy the green worm, as also the small orange-colored aphides, which often injure the bushes and destroy the fruit, sprinkle the plants with salt and water early in the spring, before the leaves are developed; the mixture may then be made so strong as to whiten the branches, without affecting the future crop. Should the leaves or buds be in part expanded, the brine should be greatly reduced, say one quart of salt to about eight gallons of soft water, applied over the bushes from the nose of a watering pot.—*New Farmers' Journal.*

Large Gourd.—An extraordinary large specimen of the mammoth gourd has been exhibited in York. The circumference of the gourd is five feet eight inches, and its weight 92 lbs.

Splendid Agricultural Prizes in Cuba.—The Real Junta de Femento have proposed a number of prizes, some of which are very large. One is $1,200 to each of the three first owners of plantations who shall, during the years 1845, '46 and '47, settle on their lands fifty white families, provided with necessary implements of agriculture. To each of the three first sugar planters who, within the same period, shall settle twenty-five white families in lots—one half of these settlers to plant the sugar cane, $6,000. To the individual who will cultivate within the same period, a sugar plantation producing annually 45,000 arrobas of sugar purified by concentration or in a vacuum—the cane to be cultivated exclusively by thirty white families, possessing each a certain measure of ground, $20,000. There are a number of other large prizes offered for the best machinery for purifying and boiling sugar; for the improvement of the breed of domestic animals, &c., &c These prizes are more valuable than any we have ever before heard of.

Guano—A Description of the Island of Ichaboe.—The following account of the Island from whence guano is taken, is from the letter of a sailor. "Here I am, on the father of all dunghills! an enormous mass of birds' manure, called guano, lying 30 feet deep on the Island of Ichaboe (pronounced Itchebo). Conceive a barren, desolate, sandy coast,—but *so* sandy, *so* desolate, *so* barren! without a soul, or a bush, or a stream near where it never rains, where the dew wets you through where it is so cold one gets the horrors, where the air is so obscure that one cannot see the land till he is a mile or two off. An enormous surf beating over the shore, rocks, reefs and shoals in all directions. Conceive a barren rock of an island off this coast to be covered to the depth of about 30 feet with a beastly, smelling-bottle sort of mass, looking like bad snuff mixed with rotten kittens! Conceive 132 ships lying packed between this island and the aforesaid sand and surf: fancy 132 masters of merchantmen, with 132 crews and 132 sets of laborers, all fighting; conceive a gale of wind on the top of these—and you will then have only half an idea of the place I have at last got into."

Charcoal as Manure in a Drought.—During the severe drought in England the past summer, the Earl of Essex mixed 24 quarts of fine pulverized charcoal with 2 quarts of turnip seeds, and drilled them in a single acre. They came up quickly and grew more rapidly than the crops without charcoal. By sowing charcoal with carrot seed they did equally well Charcoal and salt are not only direct food to plants, but powerful retainers of moisture.

Recipe for drying Pears for Dessert.—Pare the pears and leave the stalks on; cover them with water; and either boil in a brass kettle, or stew in earthenware, until they are tender; then lay them upon old dishes, and put them in a slow oven to dry; turn them frequently, that all parts may dry equally; when done put them in paper bags, and hang them in a dry place, or keep them in tin canisters or boxes. Reserve the water in which the fruit is boiled, and by constantly using this for the succeeding operation, a syrup is obtained, which gives a gloss to the fruit, as if sugar was used. I never use sugar for them.

Bathing Lambs as a Cure for the Scour.—Lambs attacked by the scour sometimes die in a few hours, and sometimes live for a month. An examination after death shows that the liver is affected, and a good deal of water is found in the intestines. Mr. Fisher says that the most effectual remedy he tried, was to dip the lambs into cold water for twelve mornings successively, and that a running stream was preferable to a pond.

Agricultural Institutions in France.—In France there are 21 model farms, and 771 agricultural associations, aided by government. The chief object of these institutions is for improving the breed of animals, for encouraging the culture of silk, wine, and other products of the soil, and for disseminating practical and useful information in topics of agriculture generally. Among the numerous experiments which have been instituted perhaps the establishment at Alfort for crossing various breeds of sheep, will be no less interesting than useful in its results. Will not our State government follow the example of France and other countries in this very important branch of education?

Editor's Table.

To Catch Bee Millers or Moths.—Dr. Waterman, in the Cleaveland Herald, says, "I took two white dishes (I think white attracts their attention in the night), or deep plates, and placed them on the top of the hives, and filled them about half full of sweetened vinegar. The next morning I had about fifty millers caught; the second night I caught fifty more; the third night being cold, I did not get any; the fourth night being very warm, I caught about four hundred; the fifth night I got two hundred. Most of these were most likely bee-moths (*Gulleria cereana*).

Exports from the Port of New York, from January 1st to December 31st, in 1841, '42, '43, and '44, of the following articles:

	1844.	1843.	1842.	1841.
Apples................bbls	13.453	15.016	8.361	3.957
Ashes—Pots.......... "	40.532	43.041	31.778	21.453
Pearls.. .... "	9.786	2.584	3.879	2.972
Beef—Pickled........ "	61.648	36.048	24.195	21.207
Dried.......... "	2.491	6.999	2.002	2.154
Beeswax............cwts	6.387	7.154	4.451	2.481
Butter.............firkins	28.761	48.034	26.939	28.681
Candles—Sperm......bxs	10.363	11.856	11.384	5.698
Tallow..... "	27.791	23.326	9.234	7.727
Cheese..............casks	11.241	8.964	5.217	4.786
Do...............boxes	77.173	62.112	20.688	23.945
Clover Seed...........tcs	3.519	1.561	4.312	3.907
Corn.............bushels	242.886	51.301	155.795	140.963
Corn Meal..........hhds	3.959	6.084	6.814	6.430
Do..............bbls	32.691	28.715	25 806	31.680
Cotton.............bales	325.460	164.354	169.214	166.315
Flax Seed.........tierces	3.924	4.131	3.066	4 129
Flour—Wheat.......bbls	347.249	274.881	325.869	311.321
Rye.......... "	6.669	8.798	10.617	11.919
Hams and Bacon.....cwts	9.481	8.235	5.627	4.364
Hides..................	45.615	53.633	31.286	4.945
Hops..............bales	3.093	2.842	5.276	444
Lard..............kegs	198.094	188.687	155.085	39.918
Lumber—shks, hd & pp	29.322	23.759	26.535	20.518
Brds & Plks.....M ft	5.689	4.748	4.831	3.397
Staves & Hd'g.....M	4.649	3.239	4.155	5.500
Hoops............M	1.797	1.000	869	946
Shingles...........M	2.423	1.761	1.109	2.742
Naval Stores—Rosin..bbls	105.225	82.844	58.481	55.021
Spts Turp....... "	2.127	1.702	1.175	1.197
Tar............. "	26.049	35.347	27.465	35.613
Turpentine...... "	207.908	202.049	188.906	128.078
Pork............... "	90.772	48.962	78.947	50.836
Oil—Linseed........galls	21.100	14.300	14.800	11.100
Whale.......... "	2.368.966	2.567.916	2.445.806	2.549.788
Sperm.......... "	389.339	472.563	275.297	144.682
Rice................tcs	23.698	28.100	19.307	11.558
Rum—American.....bbls	4.235	1.767	1.573	5.075
Soap...............bxs	44.114	33.960	24.810	27.678
Tobacco—Leaf.....hhds	5.525	6.771	7.701	9 278
do. bales, &c..	8.150	12.989	12.863	8.037
Manufactured.......kegs	15.487	11.799	11.702	13.616
Wheat..........bushels	58.282	44.885	100.323	65.159
Whisky.............bbls	736	70	1.159	1.204
Wool..............bales	106	64	1.000	369

The exports of Beef, Pork, Lard and Cheese, it will be seen, have very largely increased during the last 2 years, growing out of our enlarged trade in provisions with England. The excess of Beef in 1844 compared with 1842, is 37,453 bbls., of Lard 43,009 kegs, of Cheese 62,500 packages, of Pork compared with 1843, 41,810 bbls. The exports of Flour are larger by 72,000 bbls. The increase in Clover is 1,958 tierces, in Meal 4,000 bbls., in Corn 191,500 bushels, in wheat 13,500 bushels, and in Soap 10,000 boxes. The exports of Cotton goods have fallen off this year 8,300 packages as compared with 1843, but are larger than in 1841 and '42. The shipments of Pearl Ashes have been larger than in 1843 by upwards of 7,000 bbls., but of Pots they have fallen off 2,500 bbls. This comparison by calendar years is however scarcely a fair one, as the season for many of the above articles runs over from one year to another, and some circumstances may advance or retard shipments, and thus when the shipments of the season are equal to those of the last, the calendar year may show a considerable decrease or increase.—*N. Y. Ship. List.*

Mattresses, Blankets, and Comforters.—Of the amount which might be saved to the south, and of the reduction of the stocks of cotton for exportation, by the general introduction of cotton mattresses and cotton blankets and comforters.

States.	*Population.*
Virginia,	2,240,000
North Carolina,	750,000
South Carolina,	600,000
Georgia,	690,000
Florida,	55,000
Alabama,	590,000
Mississippi,	375,000
Louisiana,	352,000
Arkansas,	100,000
Tennessee,	800,000
Total,	5,582,000

One mattress to every five persons—mattresses,	1,116,400
Each mattress weighing, say 40 lbs.,	40
lbs. of cotton thus used,	44,656,000
400 lbs. to a bale—thus using bales,	111,640

And this besides the cotton used in the bed ticking. A comforter to very 2 inhabitants containing 3 lbs. of cotton and 10 yards of domestic, weighing, say 2 lbs., would be—comforters,

would be—comforters,	2,790,000
lbs. of cotton to each comforter,	6
	13,950,000
Equal to bales thus consumed,	118,625
Bales consumed in mattresses,	111,640
	230,265

South Western Farmer.

Good Yield of Butter.—Mr. Brainerd of Western, in this county, has, this season, made from sixteen cows, 170 lbs. per cow, besides a supply for a family of six, and much of the time seven or eight persons during the whole year. This would probably have increased the quantity to between 190 to 200 lbs. This, too, without extra feed than hay and grass, except about 150 pumpkins this fall. At the prices for which the butter sold (most of it 12½ cents, and the remainder 14 cents), the average proceeds amount to $21,40. This after raising two calves, and taking into account the pork made from the dairy slops, is surely a good return for capital and labor invested. Who has done better?—*Central N. Y. Farmer.*

Cotton Feather-beds.—The Southron recommends making mattresses of cotton, which he says is preferable to anything, as it is not liable to harbor insects, to become matted, has no moths, and is good for the rheumatism. Cost of mattresses he estimates as follows:

Hair, from	$15	to	$20
Wool, from	13	"	15
Feathers, from	16	"	25
Moss, from	12	"	00
Shucks, from	13	"	00
Cotton, from	6	"	8

Maine Farmer.

Iced Walks.—The use of a few quarts of fine salt will at once liquify the ice, if thrown upon it, and the stone that becomes impregnated with the saline substance, will prevent the adhering of new ice or snow during cold weather. A little salt thrown into a pump frozen by the cold, will at once melt the ice.—*Journal of Commerce.*

Why is an old Orchard like the toothache?—Because it is almost past bearing.

Large Berkshire Pigs.—Calvin Rood, Esq., of Sheffield, on the 15th November, killed a hog which weighed when dressed 510 pounds. The hog was 15 months old only. Also, at the same time, another which was only 18 months old, and which weighed at the time of the purchase, about the 15th of Nov. 1843, 137 pounds. It weighed when dressed 651 pounds. Allowing the shrinkage in dressing to equal the weight of the hog when purchased, there leaves a net gain of 651 pounds—showing an increase in weight daily of more than 1¾ pounds.—*Great Barrington Courier.*

Sugar on the Highlands.—The Baton Rouge Advocate states, that the experiment of raising sugar in the highlands of Louisiana—hitherto deemed chimerical—has been altogether successful, and that planters are now quite generally turning their attention to the subject.

The Yield of Coal in Pennsylvania the present year, amounts to 1,570,682 tons.

Imports and exports of the United States for 1844.—The imports during the fiscal year ending on the 30th of June, 1844, are valued as follows:

Free of duty, - - - - -	$24,766,082 00
Paying duty. - - - - - -	83,668,620 00
Total imports, - - -	$108,434,702 00
The exports for the same time were:	
Of domestic products, - -	100,183,497 00
Of foreign merchandize, - -	10,944,781 00
Total exports, - - - -	$111,128,278 00

The Gross Revenue from customs within the year was $29,137.060 60, and the net amount paid into the Treasury was $26,183,570 94; making the cost of collection $2,953,489 60. The exports exceed the imports only $2.693,576.

Population of the United States in 1900.—Mr. Darby very fairly estimates that our population at this period will be 102,840,201! The idea of such an incredible number of people constituting this nation only 55 years hence, absolutely amazes one; and yet with the blessings of Providence we can have no doubt it may be so—and there is many a one now living who will see it!

STABLE ECONOMY: A treatise on the management of horses, in relation to Stabling, Grooming, Feeding, Watering, and Working. By John Stewart, Professor of Veterinary Medicine and Surgery in the Andersonian University of Glasgow. From the third English edition, with Notes and Additions, adapting it to American Food and Climate, by A. B. Allen. Appleton & Co., 200 Broadway, N Y.; pp. 350, 12mo. Price $1 00. We are sensible that we may be considered somewhat presumptuous in attempting to edit, with a view of improvement, a work of the established reputation of the one at the head of this article; but the difference of climate and food between the United States and Great Britain are so great, and the habits and wants of the people are in many respects so dissimilar, that in re-publishing a certain class of works here, great changes are requisite in them. The horse has been a perfect passion with us from childhood, and more or less the object of our care, from the time we could go alone up to the present hour. A residence of nearly two years on the continent of Europe, gave us an excellent opportunity of studying the different breeds from the pure Arabian down; also of looking over the large military stable establishments there, and many eminent private ones. During a late ramble in England we paid considerable attention to horses and stable economy; and for several years here in our own country, we were directly engaged in breeding and rearing them on our own farm, and fitting them for the market. Thus it will be seen that we have had some little experience in this matter. Of the manner in which we have acquitted ourselves of our task we shall leave the public to judge. The work will soon be ready for delivery, and we intend to present each of our contemporaries with a copy. If any fail of receiving one they will be kind enough to notify us of the fact, and the manner in which another shall be sent The work is handsomely got up, with numerous embellishments. Among them will be found several that were not in the English edition. We particularly commend illustrations of the stables of William Gibbons, Esq., of New Jersey.

OHIO CULTIVATOR.—This is a new periodical of eight pages quarto, issued semi-monthly at Columbus, Ohio, by M. B. Bateham, Esq., late editor of the New Genesee Farmer—price $1 a year. Mr. Bateham has had several years experience as an editor, and we have no doubt he will make an excellent paper of the Cultivator, and one highly worthy the patronage of the farmers of the west. His periodical is handsomely got up; and is lively, agreeable, and instructive, in its contents. He has, both publicly and privately, our best wishes for his success.

VESTIGES OF THE NATURAL HISTORY OF CREATION: Wiley & Putnam, 161 Broadway, N. Y., pp. 291, price 75 cents. The author's name is not attached to this book, but it is supposed to be written by the celebrated author of Architecture of the Heavens. It treats of the arrangement and formation of the bodies of space; the constituent materials of the earth; era of the primary rocks; commencement of organic life, and so on to that of fishes, birds, animals and man, together with the secondary and tertiary formations; and, finally, the mental constitution of animals, and the purpose and general condition of the animated creation. It is an admirable book from beginning to end, and the best condensation of the subjects of which it treats, with all that is recent about them, that has yet been published.

FARMING FOR LADIES.—This is a very pretty English volume, 510 pages 12mo., elegantly embellished, and treating of the Poultry-yard, Dairy, &c., &c., by the author of British Husbandry. Imported and for sale by Wiley & Putnam, 161 Broadway: price $2 25.

THE CHEMISTRY OF VEGETABLE AND ANIMAL PHYSIOLOGY: by Dr. G. T. Mulder, Professor of Chemistry in the University of Utrecht. Translated from the original Dutch by P. F. H. Fromberg, first assistant in the laboratory of the Agricultural Chemistry Association of Scotland. With an Introduction by Prof. J. F. W. Johnston. First American edition, with Notes and Corrections by B. Silliman, Jr. Vol. I., Part I., No. 1. Wiley & Putnam, 12mo, pp. 78. Price 20 cts The author of this work enjoys a high reputation as a man of science, and takes up an entirely new theory on the subject of the action of organized beings. He contends that vitality is simple molecular action, analogous to certain known chemical operations, and not an imaginary power hitherto called vital force or nervous influence. We shall be better able to judge of this theory when we have read the other parts of the work. In the mean while we commend it to the consideration of the lovers of science.

ANNUAL MEETING OF THE NEW YORK STATE AGRICULTURAL SOCIETY.—This took place at Albany the past month, and seems to have been well attended, We did not receive the Argus containing the proceedings till the 25th ult, too late to give any account of them this month, our paper being already made up save this paragraph. We ought to have received these papers several days sooner from the Secretary. Full particulars will appear in our next.

ANSWER TO CORRESPONDENTS.—T., Young Farmer, H. Carpenter, G., Alexander McDonald, H. A., and Thomas Spalding, with a box of grasses, the tallow-tree, and view of his house, are duly received. The last should have been acknowledged the past month.

REVIEW OF THE MARKET.

PRICES CURRENT IN NEW YORK, JANUARY 27, 1844.

ASHES, Pots,	per 100 lbs.	$3 75	to	$4 00
Pearls,	do.	4 19	"	4 25
BALE ROPE,	lb.	6	"	9
BARK, Quercitron,	ton,	23 50	"	25 00
BEANS, White,	bush.	1 25	"	1 50
BEESWAX, Am. Yellow,	lb.	28	"	31
BOLT ROPE,	do.	12	"	13
BONES, ground,	bush.	35	"	40
BRISTLES, American,	lb.	25	"	65
BUTTER, Table,	do.	15	"	18
Shipping,	do.	8	"	12
CANDLES, Mould, Tallow,	do.	9	"	12
Sperm,	do.	28	"	38
Stearine,	do.	20	"	25
CHEESE,	do.	4	"	8
COAL, Anthracite,	2000 lbs.	5 00	"	6 00
CORDAGE, American,	lb.	11	"	12
COTTON,	do.	4	"	9
COTTON BAGGING, Amer. hemp,	yard,	16	"	18
American Flax,	do.	16	"	17
FEATHERS,	lb.	27	"	31
FLAX, American,	do.	7	"	8
FLOUR, Northern and Western,	bbl.	4 50	"	4 88
Fancy,	do.	5 00	"	5 50
Southern,	do.	4 50	"	4 88
Richmond City Mills,	do.	5 50	"	5 75
Rye,	do.	3 25	"	3 50
GRAIN—Wheat, Western,	bush.	95	"	1 05
Southern,	do.	95	"	1 00
Rye,	do.	65	"	68
Corn, Northern,	do.	46	"	48
Southern,	do.	44	"	46
Barley,	do.	60	"	62
Oats, Northern,	do.	31	"	33
Southern,	do.	27	"	29
GUANO,	cwt.	3 00	"	3 50
HAY,	100 lbs.	50	"	60
HIDES, Dry Southern,	lb.	9	"	11
HEMP, Russia, clean,	ton,	185 00	"	190 00
American, water-rotted,	do.	105 00	"	165 00
American, dew-rotted,	do.	75 00	"	125 00
HOPS,	lb.	13	"	15
HORNS,	100.	2 00	"	8 00
LEAD,	lb.	3½	"	4
Sheet and bar,	do.	4	"	4½
MEAL, Corn,	bbl.	2 44	"	2 75
Corn,	hhd.	11 75	"	12 00
MOLASSES, New Orleans,	gal.	21	"	24
MUSTARD, American,	lb.	16	"	31
NAVAL STORES—Tar,	bbl.	1 69	"	1 75
Pitch,	do.	88	"	1 00
Rosin,	do.	55	"	65
Turpentine,	do.	2 50	"	3 00
Spirits Turpentine, Southern,	gal.	37	"	39
OIL, Linseed, American,	do.	68	"	70
Castor,	do.	60	"	65
Lard,	do.	55	"	65
OIL CAKE,	100 lbs.	1 00	"	—
PEAS, Field,	bush.	1 25	"	1 50
PLASTER OF PARIS,	ton,	2 62	"	2 75
Ground, in bbls.	of 350 lbs.	1 12	"	1 25
PROVISIONS—Beef, Mess,	bbl.	6 00	"	8 00
Prime,	do.	4 50	"	5 50
Smoked,	lb.	5	"	7
Rounds, in pickle,	do.	3	"	5
Pork, Mess,	bbl.	8 25	"	10 00
Prime,	do.	6 50	"	8 12
Lard,	lb.	6	"	7
Bacon sides, Smoked,	do.	3½	"	4½
In pickle,	do.	3	"	4
Hams, Smoked,	do.	5	"	10
Pickled,	do.	4	"	7
Shoulders, Smoked,	do.	4	"	6
Pickled,	do.	3	"	4
RICE,	100 lbs.	2 88	"	3 38
SALT,	sack,	1 32	"	1 40
Common,	bush.	23	"	30
SEEDS—Clover,	lb.	6½	"	8½
Timothy,	7 bush.	10 00	"	12 00
Flax, rough,	do.	12 00	"	12 50
clean,	do.	13 00	"	13 50
SODA, Ash, cont'g 80 per cent. soda,	lb.	3	"	3½
Sulphate Soda, ground,	do.	1	"	—
SUGAR, New Orleans,	do.	3½	"	6
SUMAC. American,	ton,	25 00	"	27 50
TALLOW,	lb.	6½	"	8
TOBACCO	do	2½	"	6
WHISKEY, American,	gal.	22	"	24
WOOL, Saxony,	lb.	45	"	60
Merino,	do.	35	"	45
Half-blood,	do.	30	"	35
Common,	do.	25	"	30

NEW YORK CATTLE MARKET—Jan. 27

At Market 1100 Beef Cattle, 250 from the South, 140 Cows and Calves, and 600 Sheep.

Beef Cattle—We quote best retailing at $5 *a* 6,50, with a few extra at 7c.; market dull, and 300 unsold.

Cows and Calves—All sold at $14 *a* 28.

Sheep—Market was cleared at $1,75 *a* 5,50 as in quality.

Hay—Good supply at 56 *a* 57½c. per cwt. for loose.

Remarks.—*Ashes* are steady. *Cotton* has advanced from ¼ to ½ a cent per lb., the past month, and there seems great confidence on the part of the merchants that it will stand at the present rates. Exports from the United States since 1st September last, 558,506 bales; same time last year, 307,918; same time, year before, 600,696. *Flour*, a fair demand. *Grain* the same. *Provisions* of all kinds are more firm, the late European news has had a good effect on the market. *Swine*, the killing season is now pretty much over, and the number thus far slaughtered in Cincinnati, reaches only 170,000 head, which is 30,000 less than last year. In the valley of the Sciota, the number has decreased 73,000; on the upper Mississippi, 86,000. Added to all this, the hogs are of lighter weight this season than usual. Thus it will be seen, that there is good reason for the late advance in pork. *Corn* in Arkansas, and some other parts of the West, continues very high and scarce. *Sugar* brisk. *Wool*, considerable inquiry.

Money is less abundant, and commands 6 to 7 per cent. Specie continues to go out of the country. With the lessening of imports and increase of exports, this will doubtless soon stop.

Stocks are in good demand.

Real Estate has recently sold in large parcels at advanced rates.

The Weather thus far has been mild beyond our memory. Scarce 3 days this winter that the thermometer has sunk below the freezing point at 3 o'clock P. M. Several days it has risen as high as 50 to 60. January thus far has been complete March weather.

BOOK OF THE FARM.

This very valuable work just imported, is a SYSTEMATIC WORK on PRACTICAL AGRICULTURE, detailing the Labors of the Farmer, Farm-Steward, Ploughman, Shepherd, Hedger, Cattle-Man, Field-Worker, and Dairymaid. By HENRY STEPHENS, F.R.S.E. In Three large Volumes Royal Octavo. Illustrated with Portraits of Animals painted from the Life, beautifully Engraved on Steel by T. Landseer; and upwards of 600 Woodcuts and Plates of Agricultural Implements, so particularized as to enable Country Mechanics to construct them from the Descriptions.—Price, $27.

"The best practical book I have ever met with."—*Professor Johnston of Durham.*

"The vast mass of facts are no less valuable than the lucid way they are detailed; so that without overwhelming those asking for information, everything is given that can be wanted to be known on the subject. The knowledge displayed is extremely various, and proves the author as well read on the subjects as he is practically informed."—*Monthly Magazine.*

Imported, and for sale by

WILEY & PUTNAM, 161 Broadway.

PERUVIAN GUANO.

The undersigned has received by the George and Henry, direct from the Chincha Islands, on the coast of Peru, a cargo of this valuable manure. It was shipped by and for account of the Peruvian Guano Company, and is warranted pure, and of the best quality. Price

Under one ton, 3 cents per lb.
One to five tons, $60 per ton of 2240 lbs.
Five to ten tons. $55 do. do.
Over ten tons, $50 do do.

For sale in bags, in small quantities, at Thompson's stores, Brooklyn, or in larger parcels by

EDWIN BARTLETT, 42 South street.

FARM FOR SALE.

For Sale, a Farm containing 150 acres, adjoining the village of Comac, Smithtown, Long Island; 90 acres under a good state of cultivation. the balance in Wood. The buildings consist of a good Dwelling and Barn, and all other necessary outhouses.—Conveyances to the City daily by the Long Island Railroad. There are 3 orchards of young and thrifty Fruit Trees, such as Apples, Pears, Peaches, Plums, and Cherries, all inoculated or grafted, and of choice kinds. Also a sufficiency of smaller Fruits. The Harbor of North Port is 5 miles distant from the Farm, where Packets sail almost daily.

Price, $5000, two-thirds can remain on Bond and Mortgage.—

DURHAM BULLS & SOUTH DOWN BUCKS.

A few of the above animals will be exchanged with any one desirous of obtaining them, for well-bred milch cows. They were raised on the Hudson river, and are choice animals.

Apply, post-paid, to the Editor of this paper.

NEW AND IMPROVED POUDRETTE

Made by the Lodi Manufacturing Co., may be had at the office of the Company, No. 43 Liberty Street, New York, or at their Factory on the Hackensack River, in New Jersey, or by letter, *post paid*, addressed to "*President of the Lodi Manufacturing Co.*, New York," or from the several agents who advertise it for sale, in the country.

Terms, *Cash on Delivery.*—For one Barrel, $2; 2 do., $3.50; 3 do., $5; 4 do., and up to 6, at $1.67 each; 7 do., $1.50, is $10.50; and $1.50 per Barrel for any greater quantity—delivered at any wharf or place in the City of New York, free of expense.

The Company have now on hand several thousand barrels of their new and improved article, composed of night soil, compounded with various other substances, every one of which is a good manure by itself.

The Poudrette made by this Company, is different from that made by any other concern in Europe or America. It contains no raw-peat, turf, or meadow mud, or any other inert substance; it is not like the old fashioned Poudrette, which will generally only last for a single crop, but its effects will last for years. It has been tried extensively for the last 2 years on Long Island, in Connecticut, New Jersey and elsewhere, and has answered to such a degree, that already a very large increased demand for the next season has been manifested.

If used according to *directions*, it will be found *according to experiments* which have been made, to possess the following properties:—

1st. It is quicker in its operation upon vegetable matter than any *other Poudrette* or other Manure. It has ripened corn for table use in 60 days, and will ripen other crops several weeks sooner.

2d. It is more fertilizing; and its fructifying Powers are greater as proved by the increased yield; its effects are lasting, and by its powers of attraction, it absorbs from the atmosphere, humidity, ammonia, carbonic acid, and nitrogen, and retains their fertilizing properties, giving them out only as vegetation requires them for nutrition, thereby, obviating the effects of a long drought.

3d. It will be found to be the richest, cheapest, and best manure now in use. *It saves in labor, its whole cost* in comparison with the labor attending barnyard manure.

4th. Potatoes manured with Poudrette, are not subject to Rot, or other disease, as when manured with barnyard manure.

f1 3t.

FARMS FOR SALE.

The Farm in West Groton, known as 60 acres in the North East corner of Lot No. 63 Locke, consisting of a Farm House nearly new, Barn, and about Forty acres of improvement surrounded by a good fence, and now occupied by Robert Armstrong. Price, $1,500. One Thousand Dollars can remain on Mortgage for Ten years, at legal interest, half yearly.

ALSO,

The Farm known as the State 100 acres in the South East corner of Lot No. 2, Cicero, about a mile from the town of Brewerton, on the outlet of Oneida Lake, consisting of an improvement of 40 acres fenced, with log buildings, and 60 acres of Woodlands.

ALSO,

The Farm known as the State 100 acres in the South East corner of Lot No. 54 Hannibal, a short distance from the town of Fulton, on the Oswego River, good woodland, with a small clearing.

ALSO,

The Wood Lot known as the State 100 acres in the South East corner of Lot No. 5 Manlius, a few miles from Syracuse, and in a good neighborhood.

ALSO,

Wood lot	known as the	S.	100	acrs.	in the	S. E.	c. of	Lot No.	7	Solon.
"	"	"	"	"	"	"	"		19	"
"	"	Survey	50	acres	"	"	"	"	25	"
"	"	"	50	"	"	"	"	"	29	"
"	"	"	50	"	"	N. W.	"	"	36	"
"	"	"	50	"	"	N. E.	"	"	39	"
"	"	"	50	"	"	S. E.	"	"	58	"
"	"	Sub. 1	83	"	"		"	of lot	76	"
"	"	" 7	30	"	"		"	"	"	"
"	"	Survey	50	"	"	N. W. cor. of		"	98	"
"	"	State	100	"	"	"		" of L. No.	65	Virgil
"	"	Survey	50	"	"	N. E.	"	"	68	"
"	"	"	50	"	"	N. W.	"	"	69	"

Apply to JAS. L. BRINCKERHOFF,
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GENERAL AGENCY FOR THE AMERICAN AGRICULTURIST.

Mr. Alonzo Sherman, of Trumbull, Fairfield County, Connecticut, is hereby appointed General Agent of the American Agriculturist, with authority to appoint Sub-Agents in any part of the United States; and we hereby recommend him to the attention of our friends wherever he may go, and hope they will extend such aid and assistance to him, as will forward the object in which he is engaged.

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Published Monthly, each number containing 32 pages, royal octavo.

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Editors of newspapers noticing the numbers of this work monthly, or advertising it, will be furnished a copy gratis, upon sending such notice to this office.

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AMERICAN AGRICULTURIST.

Agriculture is the most healthful, the most useful, and the most noble employment of man.—WASHINGTON.

VOL. IV. NEW YORK, MARCH, 1845. NO. III.

A. B. ALLEN, Editor. SAXTON & MILES, Publishers, 205 Broadway.

FENCES.—No. 2.

HAVING shown in our last the enormous expense to the country of fences, and the injustice and tyranny of the system, we will now undertake to instruct our readers how a great proportion of them may be dispensed with.

1. Compel all, by the most rigid laws, to keep their stock up in strong enclosures; or, if permitted to roam, let them be in the care of some one responsible for all injuries they may do to their neighbors.

2. Adopt the soiling system wherever feasible. For a convincing argument in favor of this mode of feeding stock, we would refer to the example of Mr. Pell, as given in page 70 of this No. The labor and trouble of soiling has been greatly magnified, and one need only practise it judiciously for a single season, to be convinced of this.

3. Lands which are too poor or too rocky for a profitable rotation of crops, should be turned into sheep pastures, and managed in the same way as the downs are in Spain, England, and other parts of the world. Sheep are gentle animals, and easily restrained and kept within bounds. A faithful boy, with a single dog of medium size, will easily take care of a flock of 500. Those who possess a few acres, and small flocks, can unite their sheep, proportioning the animals to the quantity of land they respectively own, and then place them under the care of a single shepherd. These flocks may be distinguished by each owner putting his distinctive mark upon them. These should be brought home to be soiled or hurdled in a feeding enclosure every evening, and then turned out again on the hills or plains on the following morning, if there be any danger of their wandering at night into contiguous fields of growing crops.

If any one desires to see how easily all these things may be managed, let him make a tour up the valley of the Connecticut, and especially stop and examine the system practised in the town of Northampton, Massachusetts. The meadows here are several miles wide, and subject to be overflowed every spring; no fences can therefore be maintained upon them. To preserve the crops from destruction, all animals running at large are placed under the care of a responsible person, who gives bonds to the town to make good any injuries they may commit. Every owner of an animal then pays this person so much per week for taking care of them. It is a pleasing sight to see a large herd of cows under the superintendence of one man, a couple of small boys, and two dogs, quietly browsing over open fields through the day, and as they return to the village, regularly stop at the domicils of their respective owners for the night, and again gather together the next morning, to renew their feeding abroad. Thousands of acres on the south-east end of Long Island are pastured by cattle under the care of keepers, thus saving the necessity of fences. Nantucket and other islands are pastured in the same way; and it only requires a little obligingness, honesty, and honor, among the people at large (which all have, save a few *land pirates*), to adopt this system throughout the whole country.

The system of *non-fencing* forced upon the farmers of the valley of the Connecticut, by the annual overflow of the waters, is at last beginning to be adopted on the poor sandy uplands in its vicinity. The fencing of these lands hitherto had generally cost more than they were worth; the consequence was, that thousands of acres had been given up to open common, as nearly valueless, or to the slow, stunted growth of a very poor quality of wood. But now that this great and totally unnecessary expense is saved the owners of the land, they are again beginning to cultivate and improve it.

We do not know a more lovely country than the valley of the Connecticut. One may travel along its borders mile after mile, and scarcely see a fence. This looks like the *country* indeed, and not like a series of miserable, ugly fenced *cattle pens*, and *crop-prisons*. The valley is picturesquely checkered with diversified crops of grass and grain, and is owned in patches from a single acre up to one hundred. The division lines are designated by corner-stones at each end of the several lots, which terminate on cross-paths, or roads made permanent rights of way by prescription or immemorial usage. These boundaries are respected by all, and such a thing as a lawsuit or difficulty of any kind regarding them, has never been known in most of the towns, although the country has been settled for two centuries.

Heaven made the prairies of the west an open country, and to be cultivated as such; but man has come in with his accursed fences, to cut up, mar, and despoil it of its highest natural beauty; and in addition to all this, subject himself to a never-ending, grinding, and totally unnecessary tax, that the first settlers, above all, are very unable to bear. How much better would it be for them to arrest this tyrannical and odious system before it gets so strongly established that ages must pass away before it can be thrown off? Our only hope in the country is, for every person to commence a reform upon his *own farm*, by adopting the soiling system, and abolishing fences wherever practicable. To do this they must cultivate the better portions of their lands by a judicious rotation of crops, and in the best possible manner, leaving the poorer parts for stock grazing. Wherever we go we see land brought under cultivation, so rocky, rough, and poor, that the crops will not pay the expenses even of plowing and planting. Such lands ought not to be broken up till they can be done so profitably; till then let them be kept in pasture. It is preposterous to suppose that land which only yields 10 bushels of wheat or rye per acre, 15 of oats, 20 of corn, 100 of potatoes, or one ton of hay, will pay the expenses of cultivation. It ought to be rich enough naturally, or be made so, to double these crops on the average, before it is brought into tillage. It is a mistaken idea also to suppose that grass will run out in any kind of land. If pastures are properly managed, they may be kept in good grass as long as the world lasts.

◆

To prevent moulding in Books, Ink, Paste, and Leather.—Collectors of books will not be sorry to learn that a few drops of oil of lavender will insure their libraries from this pest. A single drop of the same will prevent a pint of ink from mouldiness for any length of time. Paste may be kept from mould entirely by this addition; and leather is also effectually secured from injury by the same agency.

◆

Lime.—One farmer saved his clover from destruction by the slug or small snail, on land bearing a wheat crop, by a slight dressing of powdered lime, scattered through a clover seed machine late in the evening, when the insects were busy at work. Lime would be frequently useful if applied in this manner. Sown in moderate quantity on light land, it will bring in white clover; it is said also that it will destroy the fungus which causes the rot in potatoes.

EXPERIMENTS ON MR. PELL'S FARM.

In a short and imperfect account which appeared in our last volume of the farm of Mr. Pell, in Ulster County, our readers will recollect we intimated, that we hoped at a future day to be able to give some of his valuable experiments to the public. We now commence, and shall continue them from month to month, trusting his example may be followed by others of our friends, and that from them also we may be allowed to record an account of the same in our pages.

CULTURE OF WHEAT.

First Experiment.—On the 1st of September, 1842, a field containing 20 acres was prepared for wheat. The seed used was the white flint, weighing 60 lbs. per bushel. It was prepared for sowing by soaking it in strong brine four hours, then drained through a sieve, and spread upon the barn floor, and a dry composition, highly fertilizing, sifted upon it, at the rate of one bushel of composition to ten of the seed wheat, which adhered to the seed as it dried. It was then sown at the rate of three bushels per acre, and 300 bushels of oyster-shell lime spread over the field, and the whole harrowed in together. Two men followed the harrow, one sowing clover seed, at the rate of a bushel per acre, and the other, on the same land, at the rate of half a bushel of timothy seed per acre. After that the ground was twice harrowed and rolled The wheat and grass grew luxuriantly during the following season, and presented throughout a perfectly healthy and deep green appearance. Adjoining this another field, containing 10 acres, was sown with the same kind of wheat, in a dry state. This land was not limed. The wheat grew well the next season until it blossomed, after which it appeared sickly. About this time the grain was formed, insects attacked it, and the crop was totally destroyed. The straw was covered with rust, and unfit for any purpose except manure. The wheat on the 20 acre lot was cut in the milk, commencing on Monday morning; on the Saturday following it was ground into flour. The grain weighed 64½ lbs. per bushel, and was awarded a premium by the American Institute, as the best of forty-three parcels exhibited.

It was supposed by many farmers, that so large a quantity of lime as 300 bushels per acre would have injured the land, it being a sandy loam. The grass seed grew finely, and has yielded since three tons of hay per acre.

Second Experiment.—In September, 1843, a field of 30 acres was sown with prepared wheat, and top-dressed with charcoal dust, at the rate of 52 bushels per acre. It grew rapidly, was not attacked by rust, mildew or blight, when fields near it were almost destroyed. A small portion of the lot, which had received by accident a large supply of charcoal dust, produced at the rate of 78½ bushels of wheat per acre. The grain was cut when the straw presented a yellow appearance four inches above the ground. At that stage of its growth, a milky substance could be expressed readily from the kernels, by gentle pressure of the forefinger and thumb. It was allowed to remain three days on the field, when it was carried to the barn and threshed out immediately. It weighed 64 lbs. per bushel, and sold for 12½ cents above the market price by weight. A few acres were left standing, and cut three weeks after, when others in the neighborhood harvested their wheat. This proved small, shrivelled, and weighed 56 lbs. per bushel. The straw had lost its most nutritious substances, was much lighter than that cut earlier, and was consequently less valuable. Mr. Pell thinks that after the stem turns yellow near the ground (there being no connection between the root and the tassel), the kernel wastes daily. By early cutting, nearly all the saccharine matter is preserved in the straw, and it is thus rendered almost as valuable for fodder as hay. If the straw could be returned immediately to the field and plowed under, it would doubtless prove a more valuable manure than if concocted into excrement by passing through the animal, for this reason: by the analysis of Sprengel, it contains potash, soda, lime, magnesia, alumina with a trace of iron, silica, sulphuric acid, and chlorine. In passing through the animal it assists to form the whole animal economy; and as manure is devoid of a large portion of all the substances mentioned, the grain contains precisely the same substances, in different quantities. To prove this, Mr. Pell sowed some wheat on a pane of glass, and covered it with straw, not allowing any earth to come in contact with it. This grew as well as if it had been sown in earth, but unfortunately was destroyed by accident before it came to maturity. In France the same experiment was tried, and fully succeeded.

Third Experiment.—On the 9th of October, 1844, the tops from a potato field were gathered into a heap and burnt, and the ashes returned with a view of sowing wheat. The seed was then prepared thus: soaked four hours in brine that would buoy up an egg; then scalded with boiling hot salt water mixed with pearl-ash passed through a sieve; distributed thinly over the barn floor, and a dry composition sifted on it, composed of the following substances. Oyster-shell lime; charcoal dust; oleaginous charcoal dust; ashes; Jersey blue sand; brown sugar; salt; Peruvian guano; silicate of potash; nitrate of soda; and sulphate of ammonia. After sprinkling this composition on the wheat, the sun was permitted to shine upon it half an hour, when the particles became as it were crystallized upon the grain. In this state it was sown at the rate of 2½ bushels per acre, directly on the potato ground, from which the tops only had been removed, and plowed in to the depth of five inches; harrowed once; a bushel of timothy seed then sown to the acre, and harrowed twice. At the expiration of 15 days the wheat was so far above ground, as to be pronounced by a neighbor in advance of his which had been sown on the 1st of September, in the usual manner, without any preparation. Contiguous to this, prepared wheat was sown on carrot and turnip ground, the tops not having been removed, and plowed in together with like success. Another field adjoining, 3 bushels of wheat were sown per acre, in a dry state, on potato ground first plowed and harrowed, and after sowing, twice barrowed. The first parcel, although plowed in to the depth of 5 inches, was 2½ inches high before the last appeared above ground.

The following composition of Mr. Pell's own compounding was then spread by hand broad cast over the whole field, at an expense of $3 per acre: stable manure; dry charcoal dust; hickory wood soot; bone dust; oleaginous charcoal dust; oyster-shell lime; decayed leaves; leached ashes; unleached ashes; guano; sal soda; nitrate of potash; fine salt; poudrette; horn shavings; refuse sugar; ammoniacal liquor; blood; sulphuric acid; magnesia; plaster of Paris; plaster from walls ground; decayed grass; decayed straw; decayed weeds; fish; refuse oil; sea weed; oxide of iron; and oxide of manganese. The object being to furnish food for the growing crop, every substance required for its sustenance was sought for in this composition. By Sprengel's analysis, all cereal grain, peas, beans, carrots, potatoes, turnips, clovers, and grasses, contain chlorine, potash, phosphoric acid, soda, sulphuric acid, lime, silica, magnesia, oxide of manganese, alumina, and oxide of iron, with the exception of wheat, which has no oxide of manganese, and but a small portion of iron.

Fourth Experiment.—On the 29th of October, 1844, eight bushels of wheat were sown to the acre on sod ground, and then plowed in beam deep and harrowed four times. The result of this will be given next fall.

If the two last above experiments should result favorably, the farmer will be enabled to use his corn, potato, and other root ground—which is always left in the best possible tilth by these crops—for wheat or rye, instead of allowing it to remain idle, as is the present custom, until the ensuing spring.

SOILING.

Treatment of Milch Cows.—During the summer, Mr. Pell's cows are kept in the barn yard and soiled. They are fed three times per day, at stated hours, and in addition to their ordinary food, receive at 12 o'clock each day eight quarts of wheat bran, wet with water The general feeding is dry hay, green grass, green corn stalks, occasionally a few potatoes, and salt whenever the cows feel a disposition for it. Water they have free access to at all times of the day and night, and should never be without it. An experiment was tried of giving the cows water only three times each day, immediately after eating their food, and they seemed satisfied. They were then constantly supplied, and drank freely nine times in one day, taking apparently as much at each draft as when allowed water only three times; so that, in reality, when permitted to drink only three times a day, they must have suffered much from thirst in the interims.

When the weather is very hot or rainy, the cows have sheds made partially under ground, into which they can retire and ruminate undisturbed. With this treatment they constantly take on fat, and secrete twice the quantity of milk that they would if allowed to run at large. During the past summer the cows gave an average of 16 quarts of milk daily, and in the fall were fit for the butcher. In winter they are kept in stalls in a warm barn, littered freely, as occasion requires, and daily curried and rubbed. When the weather is fine, they are turned into the barn-yard for exercise in the middle of the day. Twice a day they are fed cut oat and wheat straw, with a small quantity of bran sprinkled over it, for the sake of which they eat their allowance entirely up, and once a day cut hay; they are salted four times a week, and have roots, such as beets, carrots, potatoes, or turnips once a week. By cutting the straw and hay, cattle are enabled to eat their meal in 25 minutes; whereas, if uncut, they are engaged in masticating their food half the night, the labor and fatigue of which deprives them of the necessary time required for their rest.

Advantages of thus Soiling Stock.—Mr. Pell carted from his barn-yard 230 loads of manure on the 10th of May, which was made in the preceding six months. On the 10th of November, from the same yard, he carted 236 loads more, averaging 30 bushels per load, made within the six months following the 10th of May. Five cows only were kept, which thus made 466 loads of good manure in one year. During the summer, leaves, straw, &c., were constantly thrown into the yard, and occasionally covered with charcoal dust. Each cow voided in six months 6,000 lbs. of urine, which was absorbed by the refuse, and its strength retained by the charcoal dust, gypsum, &c.; the manure, therefore, was intrinsically worth the New York city price, viz., $1 the wagon load, or $466.

In addition to making this great quantity of manure, the other advantages of soiling are: 1, No cross fences are required on the farm. 2. The cows give twice as much milk as when running at large. 3. They are fit for the shambles in the fall, being fat. 4. They are always ready to be milked. 5. They are never worried by being driven to and from the pasture. 6. They eat all the refuse grass, which would otherwise be lost. 7. Eight acres will keep them longer and better than 40 would depastured. 8. The fields are always in order, not being poached by their feet in wet weather. 9. The person is not much longer in cutting their food and giving it to them, than he would be in driving them to and from their pasture. 10. Manure enough is saved to pay the interest on a large farm. Numerous other good reasons might be given if the above are not considered sufficient.

The above experiment of Mr. Pell, showing the superiority of the soiling system, is strongly corroborated by others made in Europe, though probably unknown to Mr. P. when he commenced his. We quote from a speech recently made before a meeting of the Larne Farming Society, in Ireland, by Mr. Donaghy, Superintendent of the Agricultural Department of the Larne National School.

"Mr. Smith, of Deanston, a gentleman, whose scientific and practical knowledge, as an agriculturist, has placed him in the first rank of the improvers of the soil, is no mean authority in support of the soiling system. In the summer of 1841, he made an experiment on a dairy of twenty cows, pasturing the one-half and house-feeding the other. He selected them as equally as possible, in point of carcase, condition, and milking quality. The result of his experiment was, that the cows house-fed gave their milk more uniformly, and more plentifully, and continued throughout in excellent health, and improved in condition from 30*s.* to 40*s.* per head over those at pasture. The cows house-fed were kept on three-quarters of a statute acre each, whilst those that were pastured required one and a quarter acre of pasture, and a quarter acre of cut grass and vetches, making one acre and a-half for each; so that, upon the whole, about the one-half of the extent of ground necessary for the keep of cows at pasture, was sufficient for those kept in the house. I could adduce abundance of other proof, from equally respectable gentlemen, in support of the superiority of this system to that in general practice; but I shall content myself with merely saying, that if, according to Mr. Blacker, a gentleman who deserves the best thanks of the agricultural community, three cows could be kept on the same extent of ground as is at present required to keep one—and I have not the slightest doubt but that, by proper management, they could—the benefit thus resulting to the farming interest would be immense. But the increase of milk and butter consequent on its adoption, would not be the only resulting advantage—the increase of the manure heap would be equally advantageous. No farmer, I care not how good his practice in other respects may be, can farm *profitably*, without a plentiness of manure. Now, it has been calculated, on an average, that cows are not kept in the house, at present, more than eight hours each day, throughout the year. If such be the case, and I have no reason to question the correctness of the calculation, would not a cow, which is house-fed summer and winter, produce three times as much available manure as one pastured? If, then, according to Mr. Smith's opinion, two cows could be kept in the place of one, six times as much manure could be made—if Mr. Blacker's views be correct, nine times as much manure could be realized. I contend, therefore, that the general adoption of this system would do away with a great deal of the poverty, privations, and misery, with which the small farmers are at present beset. And how? By increasing the means of subsistence. If we look at Belgium, with a population of 321 to the square mile (and an inferior soil to ours), and compare the condition of its inhabitants with that of the inhabitants of our own country, in which the population does not exceed 263 to the square mile, the contrast, on our part, is melancholy. But the Belgians pursue a regular rotation of cropping, house-feed their cattle, keep urine tanks, &c.; and, by superior management, are in the enjoyment of a degree of comfort and happiness to which the lower classes of Irishmen are utter strangers."

Swine running at large.—We know of no practice more to be reprehended among farmers, than to let their hogs run at large and congregate about their doors when they are fed. Here they stir up a deep mortar bed of mud with their beastly feet and snouts, and add to it the droppings of their odious filth, and the decaying heaps of corn cobs from which they have shelled their food, making the approach to many farm-houses dirty and disgusting in the extreme. A pig of a fine breed, clean, and in good condition, is, like other stock, a pleasant sight enough when kept in his proper place; but brought out in bold relief near the house, he is extremely disgusting and filthy. By letting hogs run at large they are for ever in mischief, and put the farmers to much extra expense in fencing; they glean little abroad, and sadly waste their flesh in roaming; and what is quite as important to many, they also waste their manure. Keep them up in pens or close fenced fields, sufficiently distant from the house to prevent their odor reaching it, let the wind blow as it list. It is best to let swine run in orchards; here they are kept out of harm's way, and thrive well on the fruit.

To improve Pear Trees and their Fruit.—When planted in a clay soil, mix sand and lime together at the rate of one of the former to two of the latter, and apply a bushel or so round each tree. Sea sand found mixed with shell fish is admirable for this purpose, and we presume that shell marl would be equally good.

To keep up a moist atmosphere for Cuttings.—In visiting conservatories, we have frequently heard complaints from those who had the care of them, of the difficulty of keeping up a moist atmosphere during the propagation of cuttings. For their benefit, we here present a plan for the same, which we have taken from the Gardeners' Chronicle. We can recommend it as a good one, from having seen it in successful operation in conservatories in this vicinity.

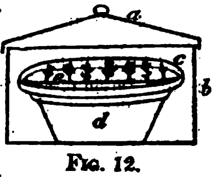


Fig. 12.

Explanation.—*a*, The cover of a hand-glass.

b, The frame-work of ditto.

c, A tray or riddle, having a bottom made of copper-wire, or perforated zinc, to receive soil wherein to plant cuttings.

d, An earthen pan, filled with water.

e, Cuttings.

Place the pan upon the ground, and the tray upon the pan, and over these put a hand-glass.

N. Y. STATE AGRICULTURAL SOCIETY.

Annual Meeting, 1845.

The Annual Meeting, for the choice of officers, &c., was held in the main hall of the Old State House, on Thursday, the 15th of January, John P. Beekman, President of the Society, in the chair.

Reports of the Officers, &c.—The Treasurer, Thomas Hillhouse, of Albany, read a statement of receipts and expenditures during the year, for which he submitted the vouchers. It appeared, by this statement, that the receipts and disbursements for the year 1844 were as follows:

Receipts.

Interest on $3000 invested in stock	$210 00
Donation from John Greig	50 00
“ “ Geo. Vail	25 00
“ “ Robert Donaldson	12 00
“ “ J. P. Beekman	50 00
“ “ J. McD. McIntyre	20 00
“ “ Joel Rathbone	25 00
“ “ Wm. H. Seward	50 00
Receipts at Show	3,723 80
Appropriation from the State	700 00
	$4,865 80

Payments.

Premiums	$1,600 50
Balance due former Treasurer	114 23
Recording Secretary, for clerkship in charge of the State Agricultural Hall	550 00
Expenses at Show	300 00
Subscription to Colman's European Agriculture	100 00
Design for Diploma	50 00
Binding	328 00
Printing and advertising,	409 34
Incidental	481 84
	$3,933 91

The Corresponding Secretary, Benjamin P. Johnson, of Rome, made an interesting report concerning his labors for the year—mentioning the extent and satisfactory character of his correspondence, &c. He submitted sundry valuable papers and essays received from correspondents in different states, for insertion in the annual volume of Transactions; and congratulated the Society on its cheering prospects of extending usefulness.

The Recording Secretary, Henry O'Reilly, reported briefly on the operations of the Society, as far as duty devolved upon him in charge of the business at the State Society's Hall—remarking that he was preparing a full statement from the records of the year, to be submitted to the public authorities as required by law.

I. *Wheat.*—First premium awarded to Matthew Watson, of Canandaigua—he having raised two hundred and fifteen bushels of wheat on four acres and twelve poles of ground—or nearly fifty-two and a half bushels per acre.

II. *Corn.*—The first premium on corn was not awarded. The Committee award the second premium on corn to J. F. Osborn, of Port Byron, Cayuga county—his crop being two hundred and thirteen bushels and three-eighths of a bushel, on two acres of land.

Several applications in reference to wheat and corn crops were rejected, owing to defects in the statements of applicants—the measurement of the ground and other particulars not being properly certified. The Committee on Wheat and Corn crops reported by Joel B. Nott, of Guilderland, their chairman.

Note on the Corn Culture.—In connection with the report on corn crops, Mr. Enos, of Madison county, mentioned some interesting facts connected with his cultivation of corn, in reply to inquiries from many gentlemen in the meeting. The crop of Mr. Enos was unfortunately precluded from competition, by the fact that the papers on the subject failed to reach Albany in season for the present meeting. The reported product was extraordinary—one hundred and forty-seven bushels to the acre. On motion of Mr. E. Comstock, of Oneida, Mr. Enos was requested to furnish the Society with a detailed report of his process in raising this large crop. The statement of experiments on the culture of corn, made for a series of years by Mr. George Geddes, of Onondaga, it may here be added, are of interest akin to that excited by the experimental wheat farm of Gen. Harmon, of Monroe county; and will be found among the contents of the forthcoming volume of Transactions.

III. 1. *Barley.*—First premium to Stephen B. Dudley, of East Bloomfield, Ontario county—his crop being sixty-nine bushels and ninety-hundredths per acre, on a lot of two acres. The second premium was awarded to William Wright, of Vernon, Oneida county—his crop being fifty bushels and forty-seven pounds per acre, on a lot of two acres. The third premium was given to Nathaniel Wright, of the same place—his crop being forty-seven bushels and twenty-five pounds per acre, on two acres of ground. Bani Bradley, of East Bloomfield, stated that he had raised fifty-five bushels and three pounds on an acre; but the rule of the Society requiring *two* acres, this crop was excluded—there being only one acre and two rods in his lot. Several other crops were excluded from competition, owing to defective returns.

2. *Oats.*—The first premium to Seth Lawton, of Washington, Dutchess county—his crop being one hundred and twenty and one-quarter bushels per acre. The second premium to F. J. Osborn, of Port Byron, Cayuga county—his crop being one hundred and four bushels per acre, on a lot of two acres and nine rods. Several statements were necessarily rejected, through the imperfection of returns. There were no competitors for the premiums on rye and

peas, or on corn sown broadcast. The committee reported by Ebenezer Mack, of Tompkins county, their chairman.

IV. *Clover Seed.*—A volume of the Transactions was awarded to Henry Brown, of Enfield. The result on three acres and ten rods of ground was, ten bushels of seed, weighing sixty pounds per bushel—one bushel and eleven pounds at the rate of fifty-two pounds to the bushel; and half a bushel of tailings, weighing thirty-eight pounds per bushel.

V. 1.—*Ruta Baga.*—First premium to John G. Smedberg, of Prattsville, Greene county—he having raised eleven hundred and sixty bushels on one acre, and twenty-one hundred and seventy-three bushels on two acres and five rods. The second premium was awarded to Henry S. Randall, of Cortland—his crop being eight hundred and twenty bushels per acre. The third premium, for seven hundred and twenty-four bushels per acre, was awarded to C. B. Meek, of Ontario county.

2. *Carrots.*—First premium to William Risley, of Chautauque—his crop being ten hundred and fifty-nine bushels per acre. One applicant only.

3. *Mangel Wurtzel.*—First premium to C. B. Meek—his crop being eleven hundred and one bushels per acre. One applicant only.

4. *Sugar Beets*—To J. F. Osborn, of Cayuga county, the third premium—his crop being six hundred and fifty-seven bushels per acre. One applicant only.

5, 6 *Potatoes and Cabbages.*—No applicants for the premiums on either crop.

VI. *Butter.*—Only two applications were made for premiums on butter. The committee awarded the first premium to George Vail, of Troy—being a silver medal. Mr. Vail's cows are Durhams. Six of them, kept on grass feed, produced in thirty days, two hundred and sixty-two pounds nine ounces of butter—averaging for each cow forty-three pounds twelve ounces. The milk of one of these cows was kept by itself for thirty days, and yielded in that time fifty-two pounds nine ounces of butter.

VII. *Sheep.*—The committee, consisting of Major Kirby, J. M'Donald M'Intyre, and C. N. Bement, to whom was referred the statement of Mr. Henry S. Randall, of Cortland (the only claimant for a premium "for the best managed flock of sheep"), awarded him a gold medal worth $12.

Various Committees on Agricultural Books, Essays, &c., now reported, which will be spoken of hereafter.

Election of Officers—1845.—The committee of three from each Senate district, appointed to nominate officers for the current year, and also to designate a location for the next Annual Fair and Cattle Show—through their chairman, Judge Savage, reported the following names for officers; and the nomination was unanimously confirmed by an election according to law, viz.:—

BENJ. P. JOHNSON, of Oneida, President.
1st district—James Lenox, of N. Y., Vice President.
2d district—Thos. L. Davies, of Dutchess, V. P.
3d district—E P. Prentice, of Albany, V. P.
4th district—H. W. Doolittle, of Herkimer, V. P.
5th district—Benjamin Enos, of Madison, V. P.
6th district—O. C. Crocker, of Broome, V. P.
7th district—H. S. Randall, of Cortland, V. P.
8th district—G. W. Patterson, of Chautauque, V.P.
Daniel Lee, of Erie, Cor. Secretary.
L. Tucker, of Albany, Rec. Secretary.
Thomas Hillhouse, of Albany, Treasurer.

Thomas S. Faxon, of Oneida, E. Kirby, of Jefferson, Alex. Walsh, of Rensselaer, George Vail, of Rensselaer, J. M'D. McIntyre, of Albany,	Additional members.

State Fair and Cattle Show of 1845.—The same committee discharged their remaining duty by reporting in favor of Utica, as a proper location for the next State Fair and Cattle Show—a committee of the citizens of Utica, viz.: T. S. Faxon, John Butterfield, Alfred Churchill, Benjamin N. Huntington, H. Greenman, and David Gray, Jr., having pledged themselves to prepare the grounds with all such erections as shall be required by the Executive Committee of the State Society, so as to be in all respects ready for the Society to occupy at their next Annual Show, and also to furnish such police officers and clerks as may be requisite for transacting the business of the Fair and Cattle-Show, without expense to the State Agricultural Society.

The Society then adjourned till seven o'clock in the evening; at which time the members and other friends of agriculture met in the Assembly Chamber, the use of which was granted for the occasion.

The Annual Address—Was then delivered by the Hon. John P. Beekman; who, in the course of his remarks, reviewed the progress of Agriculture in its main features, from an early period down to the present time. Practical observations on the character of modern agricultural implements, as well as theoretical views on modern science in its connection with ordinary farming operations, were blended in the progress of his discourse, and he referred with feelings of strong satisfaction to the onward course of improvement manifested in the operations of the Agricultural community all over the State. He referred to the beneficent influence of the legislative bounty, small as that bounty is, in stimulating attention to farming affairs; and commended the efficient as well as economical spirit with which the legislative appropriation had been turned to the advancement of agricultural improvement. He also alluded to the effects of this improvement upon private happiness and public prosperity; and expatiated on the comforts brought within reach of our whole *industrious* population—the humblest among whom, if discreet and enterprising, may enjoy comforts which not long ago could scarcely be compassed by persons of moderate fortune.

On concluding his remarks, the speaker (Mr. Beekman) introduced his newly elected successor,

Mr. Benjamin P. Johnson, who then made a few remarks, expressive of his views of the honor conferred upon him by his election as President of the State Agricultural Society—and assured the audience that his efforts would be increased by a sense of the additional responsibilities devolved upon him by the new official position in which he had been placed, through the partiality of his agricultural friends. He urged all around him to remember the motto on the escutcheon of our noble State—"Excelsior"—and inquired what motto was more consonant with the aspirations of those who seek advancement—higher, still higher—in the scale of agricultural and intellectual progress?

It was then, on motion of Judge Jones, of Oneida, *Resolved,* That the thanks of the State Agricultural

Society be tendered to our late President, Dr. Beekman, for his valuable services in promoting the harmony and interests of the Society during the past year—particularly for his able and eloquent address this evening; and that a committee of three be appointed to request a copy of said address for publication.

The committee named under this resolution consisted of Messrs. Jones of Oneida, Sherwood of Cayuga, and Kirby of Jefferson.

On motion of Gen. John J. Viele, it was

Resolved, That a committee be appointed to prepare a memorial to the Legislature, at its present session, for a renewal of the Act of 1841 for Promoting Agriculture.

The committee under this resolution consisted of Messrs. Viele, Prentice, Rathbone, Walsh and Tucker.

And then, after notice being given that the newly elected officers of the Society would meet to organize on the following day, at the Agricultural Hall, in the Old State House, the meeting adjourned.

HENRY O'REILLY, *Rec. Sec'y.*

MEETING OF THE AMERICAN AGRICULTURAL ASSOCIATION.

THE first general meeting of this new Association was held on Monday evening, the 10th of January, at the rooms of the Historical Society, in this city, and the following officers were elected for the ensuing year:—

President.—Hon. LUTHER BRADISH.

Vice Presidents.—Hon. THEODORE FRELINGHUYSEN; JAMES LENOX, Esq.; JAMES BOORMAN, Esq.; Dr. A. H. STEVENS; THOMAS A. EMMET, Esq.; HUGH MAXWELL, Esq.; STEPHEN WHITNEY, Esq.; SHEPHARD KNAPP, Esq.; Vice Chancellor McCOUN; CYRUS MASON, D.D; W. A. SEELEY, Esq.; J. S. LIVINGSTON, Esq.

Consulting Officers.—Major LE CONTE, U. S. A., Entomology and Zoology; Professor RENWICK, Mechanical Philosophy; W. C REDFIELD, Esq., Geology; Professor TORREY, Botany; Professor DRAPER, Physiology; JOHN JOHNSON, Esq., Rural Architecture; Professor LOOMIS, Meteorology; Dr. D. P. GARDNER, Chemistry, D. J. BROWNE, Esq., Arboriculture.

Dr. C. C. GRICE, Veterinary Surgery.

Recording Secretary.—Dr. H. A. FIELD.

Corresponding Secretary.—D'JAY BROWNE.

Treasurer.—A. P. HALSEY, Esq.

Publishing Committee.—A. B. ALLEN, Esq.

Executive Committee.—The President and the two senior Vice Presidents; R. L. PELL, Esq.; Dr. J. W. DRAPER; ARCHIBALD RUSSEL, Esq.; EDWARD CLARK, Esq.; Dr. J. P. GARDNER.

Though suffering from a recent dislocation of his right shoulder, such was his interest in the good cause, that the President appeared at the hour appointed for the meeting of the Association, and after calling it to order, made an eloquent address.

An admirable and elaborate paper, replete with scientific detail, was read by W. A. Seeley, Esquire, proprietor of the *Wheat-Sheaf Farm*, on Staten Island, on Organic and Agricultural Chemistry, which elicited warm marks of approval, and has since been issued from the press.

The meeting was also addressed by Hugh Maxwell, Esq., Dr. A. H. Stevens, Professor Mason, Dr. Underhill, and others, in honor and praise of agricultural pursuits, and their tendency to promote the wealth and general happiness of our people.

The assemblage then adjourned to Monday evening, the third of March.

We may well congratulate the country on the formation of this Association, for it numbers already among its members several hundred of our most eminent and respectable citizens. The object of it is, to collect and diffuse correct information on Agriculture and its kindred sciences. It is proposed to accomplish this by the following means:

1. By founding a Museum of seeds, fruits, specimens of choice varieties of plants, models of implements and buildings; portraits of improved animals; together with a collection of geological specimens, and all other objects appertaining to agriculture.
2. The establishment of a Laboratory for the examination of manures, composts, marls—and the investigation of the mineral food of plants, fruits and seeds.
3. The establishment of an Agricultural Library.
4. The instituting practical and scientific experiments in these arts; and essays, papers, and lectures for publication in a series of transactions.
5. The discussion at stated meetings of topics in these arts.
6. The establishment of an interchange of soils, plants, fruits, seeds and scions, implements, engravings, &c., with other societies and individuals.

THE MEXICAN PHEASANT.—We are informed by a correspondent, that this splendid bird is of a peculiar species. It is nearly as large as a turkey, with shining black plumage, and a singular yellowish band at the insertion of the beak. We wish some of our wealthy merchants who send ships to that country, would import a few more pairs and acclimate them here. We have no doubt this may easily be done. They would prove a good addition and great ornament to the poultry-yard. We understand a pair of these birds were brought home in the Eugenia, the same vessel in which our late minister to China, Mr. Cushing, came passenger from Vera Cruz.

LARGE CROPS.—An unknown friend has had the kindness to send us the proceedings of the Tompkins County Agricultural Society, at its meeting in January. Much of the land in that section of the State is very fertile, and the people are remarkable for their intelligence, fine stock (especially of sheep), and the large crops they get from their land. Mr. John Selover, 2d, of Ithaca, raised from 2 acres, less 10 rods, 115 bushels (59½ per acre) of wheat, weighing 60 lbs. per bushel; from 2 7-8 acres, 148½ bushels of barley; and from 2½ acres, 37½ bushels of flaxseed. Mr. Brewer raised on 3 acres and 10 rods, about 15 bushels of clover seed.

SALT.—A quantity of soil taken out of a ditch, and full of docks, was entirely cleansed of them by the application of salt. 40 cwt. was added to the soil, and mixed for six months previous to being applied to three acres; this was spread in January on a useless kind of grass, that cattle would not eat; a good herbage immediately took its place, and it became the most valuable part of the field. Salt sown on turnip land, and also previous to sowing wheat, is of great value. A few handfuls of salt strewn over horse manure, immediately after being taken from the stable, combines with the ammonia and retains it. This is washed away by rains, unless protected from drainage

European Agriculture.

Arrival at Havre.—I am travelling so rapidly that I am only enabled to put together, in a somewhat disjointed manner, a few observations on agriculture here, which I have thus far made. We had a somewhat rough passage of 24 days, and landed at Havre on the 5th December. We were agreeably disappointed in the French Custom-House officers; they merely glanced over our baggage, and dismissed us with all civility and politeness. During the two days that we spent in Havre, I found much that was new and interesting; but at this dreary season, nothing of much agricultural interest.

Gardens in Havre.—About half a mile from the Seine, Havre rises abruptly to the height of nearly 200 feet, and is then beautifully terraced with gardens and lawns, in the English style. Although in the depth of winter, and all deciduous trees consequently stripped of their foliage, these gardens were exceedingly beautiful. Commencing below, we were conducted by the gardener attached to one of these residences up the ascent, winding along the graceful curves of drives and walks, which were bordered by the closely shaved and bright green turf, and clumps of rhododendron, Portugal laurel, and the laurustinus, with its flowers just bursting into bloom; their rich glossy leaves presenting a very lively appearance at this dreary season. There were some rich thick masses of photinia, and a fine hedge of alaternus. In one place, a thorn hedge near a wall was so trimmed, that its top projected over upon the summit of the wall, and formed its continuation. The steep sides of the terraces were supported by walls, on which were trained pears, peaches, plums, and grapes, and occasionally they were covered with the dark rich foliage of the English ivy

It struck me forcibly that this would be a beautiful covering for our rough stone walls in America. The ivy spreads very rapidly, and planted at distances of three or four feet, would very soon cover the whole of the wall and, instead of attenuated, irregular points and crevices, would then present a mass of foliage, forming a living fence, beautiful at all seasons of the year. (*a*) But to return to the garden. In one place successive terraced shelves, about two feet above each other, were cut out of the earth, and raised as a sort of stage for potted plants, when in flower.

We also visited the estate of M. Boisquard, the mayor of a town in the vicinity of Havre. Although stripped in a great measure of its foliage, this, too, was evidently a place of no common beauty. The lawn undulated on all sides from the house, and a circuitous drive of more than a mile was bordered with the lively evergreen shrubs, which formed so large an attraction in the other gardens. The turf was beautifully close and green, and we saw occasionally fine large specimens of the European hemlock, balsam fir, Norway spruce, elms, &c. There were also some fine hollies, both American and English. At the distance of about half a mile from the house were the green-house and stoves, which were heated by hot water. The green-house contained a good collection of camellias and other plants, well known to all amateurs; and in the stove were some rare orchideæ, ericas and cacti. The whole collection was good, although not equal to many I have seen in America.

Norman Horses—In the stables of M. Boisquard we found a pair of very fine horses, of the Normandy breed. One was got by an English horse, but the other was pure Norman, and one of the noblest animals I ever saw. He was a brown, some 17 hands high, with immense chest and quarters, and yet he showed fine action. His depth of shoulder was nearly three feet, and his limbs were remarkably clean and well made. The groom told us he was sixteen years old, and that he would now travel fifteen miles per hour. His owner had refused 3,500 francs for him. The cart horses used here are mostly of Norman blood, but heavy and of medium size—being similar to our Canadians. They are used for carting to a distance, and with very heavy loads are driven entirely by the word of command, four and five in a team.

Paris.—On the morning of the 7th December we took the diligence for Paris, and rattled up to Rouen at the rate of ten miles an hour; sometimes with nine horses attached to our vehicle, and all at full gallop. At Rouen we took the rail-road, and arrived in Paris about ten o'clock at night. Here we found it cold and unpleasant, and remained merely sufficiently long to have our passports *viséed*, and to visit the Louvre and one or two other places of interest. We took the diligence for Marseilles. Although I visited the Jardin des Plantes at Paris, it was in so hurried a manner, that I shall reserve a description of it until I can give it a more thorough examination, on my return hither in the spring. I paid a flying visit to the horse-market, where were collected and exposed for sale about 1,000 horses. There were, however, no good ones among them; they were mostly poor crosses of the Normandy, a breed in its purity of fine bone and muscle; but when crossed with the poor French hackneys, producing a set of animals inferior in size, and adapted only for draught horses. Yet in no city have I seen a greater proportion of fine horses, than before the equipages at Paris.

Road to Chalons.—After leaving Paris we travelled at our usual rapid rate; but from our seat in the *coupé* of the diligence, with glass in front and at the sides, we could have a very good view of the country. It was mostly broad table land, slightly undulating, and very highly cultivated. I was pleased with the very straight plowing, in which some of our farmers might take lessons to advantage. The French plow is very rude and inconvenient.

On reaching Chalons, we took the steamer down the Saone to Lyons, and thence by the Rhone to Avignon and Beaucaire. The scenery on the Rhone is very fine, the Alps towering in the distance, and the intervening hills cultivated with vines to their very summits. Occasionally were seen a flock of sheep, with their shepherd and dog. From Beaucaire I came to Nismes. And now that I am sufficiently far south to feel a mild climate, I find much to enjoy.

Nismes and its Nurseries, Lucerne, the Olive and Madder.—I have not space on this sheet to give much of a description of Nismes and its vicinity. I have visited one of the largest nurseries in France, some fifteen or twenty miles distant. It belongs to the Frères Audibert. They have an immense collection, but there is not that order and system to which we are accustomed on Long Island. The olive is the principal article of cultivation here, and is an attractive object in the scenery, when it is planted in masses.

Lucerne is much cultivated here; and madder to some extent. I shall examine the cultivation of this latter crop minutely when we get to Sicily, where we propose going from Marseilles, and thence through Italy, Prussia, Austria, Belgium, and Holland, again to Paris, and thence to England, examining, as I go, all that is interesting in horticulture. I have sent home many new varieties of pears and other fruits, with some three hundred kinds of grapes, to be tested in our climate. S. B. PARSONS.

Nismes, South of France, Jan. 22, 1845.

(*a*) We presume our correspondent means the Irish ivy, as this bears the English name on the Continent. It may be seen covering the front walls of the Hospital in this city, and the walls of Castle Garden on the Battery. It stands our climate perfectly; and is of a deep, rich green all winter. The Irish ivy is brighter and deeper in its color than the English, has much larger leaves, and grows four times as rapidly. We found, when in England, that it was fast taking the place of their own, being greatly preferred, for its superiority of growth and foliage.

CULTURE OF STRAWBERRIES.

I HAVE for several years practised with success the following method with my strawberry beds, and am therefore induced to offer it for publication in your paper.

The beds are to be formed in the usual manner, three feet in width, and marked by lines running lengthwise and transversely, the former being one, and the latter from two to four feet apart—the plants to be set at the intersections.

If Hovey's Seedling, Methven, Downton, or other variety requiring fertilizers be cultivated, three or four of them are sufficient for a bed, to be set at the points F, as in Fig. 13, and kept trimmed of their runners. Now commence raking the beds as often as necessary, not to *get out* the weeds and grass, but to *keep them out.*

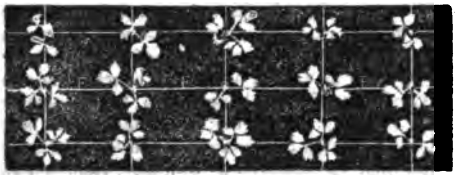


FIG. 13.

When the runners begin to grow, they are to be turned by the rake or hand to form rows one foot apart, lengthwise of the beds. The rake should be of light construction, about ten inches wide, and the teeth an inch and a-half long, and an inch apart.

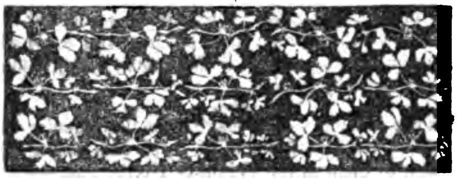


FIG. 14.

Towards the close of the season, when the rows are full, if plants are wanted for new beds, the runners may be allowed to take root in the intermediate spaces, and the raking be discontinued. They must, however, be taken out of the way early in the succeeding spring. If not wanted for this purpose, they should be taken off by the rake or other more convenient instrument, and the spaces between the rows kept entirely clean.

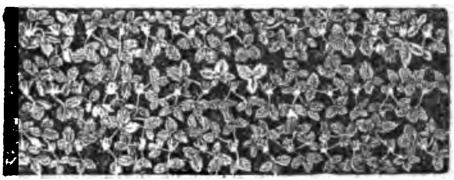


FIG. 15.

Late in the fall, or very early in the following spring (according to soil and climate), the beds should be slightly covered with litter of some kind for protection during the winter, if necessary, or at least to keep the berries from the ground. After bearing, the litter should be immediately taken off and the rake put in operation, which, with very little labor, seasonably applied, will keep the bed in excellent order.

After two or three years, when it becomes necessary to renew the beds, it can be done by hoeing out all but a few of the plants, and turning the runners into the rows, according to the process previously described. If there be occasion to apply manure to them, it can easily be worked in with a spade between the rows.

The above method is deemed preferable to that of cultivating the plants in hills, (the only other that should ever be thought of for a garden); first, on account of the greater facility in filling a bed with the requisite number of plants; and second, because that in a bed containing a greater number of plants, the operation of raking is both more easy and more effectual, and it must consequently yield a greater product. In the ordinary mode of culture, in which the vines are allowed to run at random all over the beds, and the weeds and grass, if removed at all, are to be pulled out by the fingers, the prospect is truly discouraging; and it is probably more for want of a better method than from any other cause, that so many are content to do without the fruit.

PHILETUS PHILLIPS.

Middletown Point, N. J., Feb., 1845.

MODEL OF A PRIZE HEIFER.—Francis Rotch, Esq., of Otsego, now in London, writes us that the Short-Horn heifer of Sir Charles Tempest, which took the prize of the gold medal, as the best animal at the Smithfield club exhibition, was as near perfection as an animal well can be. An artist, every way qualified for the task, has taken a model of her from minute measurement, and if $75 can be made up, he will furnish thirty beautiful plaster casts of her fourteen inches long, which will make them cost $2.50 there, or not to exceed $3.00 each delivered here. This is a rare opportunity for gentlemen to furnish themselves with a superb model of a Durham cow, and we hope a subscription list will be immediately filled up for it. We will gladly forward any money sent us, to Mr. Rotch, for this purpose. A plaster model like the above, would be invaluable as a study to our breeders.

SHEEP HUSBANDRY IN SPAIN.—No. 3.

THE first thing to be done after the sheep return to their winter plains, is to prepare the toils, in which they are to pass their nights, lest they should stray away and fall into the jaws of the wolves. The "Rediles," or toils, consist of enclosures of net-work, with meshes a foot in width, and of the thickness of the finger, made of a species of rush, called "Esparto" (*Lygeum Spartum*). This plant is also much used in the south of France and Spain, for making ropes, mats, baskets, &c., and was also employed for similar purposes by the ancient Romans.

About the end of December, the ewes begin to bring forth their young, which is the most toilsome and the most solicitous period of the pastoral life. The shepherds first separate the pregnant from the barren ewes, and conduct them to the best shelter, and the others to the bleaker parts of the district. As the lambs are yeaned, they are led apart with their dams to a more comfortable place. A third division is made of the lambs last brought forth, for which was allotted from the beginning the most fertile spot, of the sweetest feed, and of the best shelter, in order that they may grow with as much vigor as those first yeaned; for they must all set off the same day, in spring, towards their summer-quarters.

It is the interest of a proprietor to increase his flock to as large a number as the land allotted to it can possibly maintain; in consequence of which the sheep are always low kept. When a flock has arrived at that point, all further increase is useless, as there is but little sale for these sheep unless some neighboring cavaña has been reduced by mortality. Hence most of the lambs are killed as soon as they are yeaned, and each of those preserved is allowed to suck two or three ewes.

In the month of March, the shepherds perform four operations on the lambs, about the same time. They first cut off their tails five inches below the rump, in order to preserve cleanliness; they next brand them on the nose with a hot iron, making a permanent mark or character, indicating the flock to which they belong; and then saw off a portion of their horns, to prevent the rams from hurting one another, or the ewes. The fourth operation is to render impotent the lambs destined for docile bell-wethers, to walk at the head of each tribe. This is not done by making an incision, as with us, but by turning the testicles with the fingers twenty times round in the scrotum, twisting the spermatic cords, as a rope, and the parts wither away without danger.

As soon as the month of April arrives, which is the period of departure from the winter to the summer quarters, the sheep manifest, by various uneasy motions, a remarkable restlessness, and a strong desire to be off. At this time, it is necessary that the utmost vigilance should be exercised, lest the sheep should escape, as it has often happened that a tribe has stolen a forced march of three or four leagues upon a sleepy shepherd; but he is sure to find them by pursuing the same road over which they came the autumn before; and there are numerous instances of three or four strayed sheep walking a hundred leagues to the very pasture where they fed the preceding year. Thus they all go off towards their summer retreats in the same order as they came, only with this difference—the flocks which migrate to Old Castile are shorn on the road, and those that go to Arragon, are shorn at their journey's end. D'JAY BROWNE.

TO PREPARE BONES FOR MANURE.

A considerable number of bones are collected about my house, and I presume those of my neighbors, every year. I have long had an idea that these might be converted into a valuable manure on the spot, but am at a loss to know how to crush them. The ordinary mills are too far distant, and one on the farm would be too expensive. I tried to soften them at first by cheap acids or vinegar, but find it too troublesome and expensive. How would the following answer:—have a large stone mortar, with a heavy pestle attached to a spring pole? Can any of your readers furnish a hint on a subject of no small importance to farmers, and oblige your friend and occasional correspondent, W. W.

Newark, N. J., Jan. 20, 1845.

We are of opinion that the pestle and mortar suggested by our correspondent would be entirely inefficient to crush bones, they are so hard. It would be easier to break them with a stone hammer. A cheap mill to move by horse power might be erected to grind for a neighborhood, upon the same plan as the old fashioned bark or oil mill, viz.: thick, heavy stones, fashioned like flour mill-stones, and placed upright, to follow each other in a circle, rolling over and crushing the bones. The principal value of bones is their phosphate of lime, which in the domestic animals varies usually from 50 to 70 per cent of their weight. In burning bones, but a small portion of this phosphate is lost; when, therefore, it is inconvenient to grind them, they may be burned, and the ashes applied to the land. A very simple and cheap furnace may be made for burning bones in the following manner. Build it up with brick or stone and lime, shaped like an oven, leaving a flue with a chimney a foot or two high at the top of the back end. In building it, when the walls are raised two feet or so from the ground, place iron bars across, within two or three inches of each other. These may be of cast iron, or old wagon-tire. When the furnace is completed, put a layer of fine split, dry wood on these bars, then a layer of bones, then another layer of wood, then bones again, till the furnace is full. Now set fire to the wood, and as the mass consumes the ashes fall below through the iron grate, and can then be removed as wanted. Rain should not be permitted to fall on these ashes before applying them to the land, as it will injuriously leach them. In burning bones the animal matter in them is lost. This varies from 20 to 45 per cent of their weight, and for some crops, such as wheat, &c., it is very valuable. We are of opinion, where no mill is convenient, that it would be more economical to break them up with hammers. It can be done under sheds in rainy weather; and it is not material to break them very fine, as they will decompose pretty rapidly, even coarsely broken.

IMPERIAL OATS.—We desire to call particular attention to the advertisement of these oats and a description of them in the February No.

PLOWS AND CULTIVATORS.—We have a very choice and complete assortment of these on hand See advertisement.

Agriculture in Scotland.—No. 5.

LIME.—Among agricultural subjects of interest, there are few more important than that of the use of lime, and scarcely any which in intercourse with the farmers of this country is more frequently recurred to. It has its place in almost every rotation, and in many districts is relied on as the chief means of restoring to fertility the exhausted soil, or of continuing the fertile soil in its best possible condition. With many farmers, indeed, the use of it has been carried so far as to prove injurious; from this and other causes, which I shall presently notice, have arisen the conflicting opinions upon the subject that may be found not only in different districts, but among persons who live in the same neighborhood.

I had the pleasure of attending, a few weeks since, a meeting of the St. Quivox Farmers' Club, in Ayr, a club distinguished for the zeal of its members in agricultural improvement. Mr. Campbell, of Craigie, and Mr. Burnett, of Gadgirth, whose experiments, especially those of the latter gentleman, have been so much quoted and commended in Professor Johnston's lectures, are the President and Vice President of the Club. The subject of lime was proposed for discussion, and each of the members was called upon by the president in succession, to state facts from his own experience and observation, and to give his peculiar views as to the benefits of lime, and its mode of action.

When lime was mentioned, I supposed that all would be agreed as to its merits, and that we should only have a series of illustrations of its virtues. My mistake was soon apparent, for scarcely any two coincided in their opinions. All had used lime more or less, but while some experienced from its employment the most striking benefits, others had been entirely disappointed; they had not perceived the least improvement in their crops, and declared their determination never to use it again. These contradictory statements, coming all of them from shrewd, practical men, were very perplexing to me, and continued so until Professor Johnston pointed out several circumstances which may account for what at first sight seem fatal and irreconcilable discrepancies.

First. Much of the land about Ayr, and farther inland, though not swampy, is wet: I saw rushes growing on some pasture fields to the very tops of the hills. Now, upon such land, in its natural state, the same striking and permanent effects are scarcely to be expected from the application of lime, as upon drier land, for much of its beneficial action results from its warming the soil, from its neutralizing noxious substances, and decomposing various compounds, thus fitting their ingredients to enter into the composition of plants. This action cannot, in anything approaching its full extent, take place where a great excess of water is present. Until such lands as the above are drained, therefore, the comparative failure of an equal dressing of lime should not excite surprise, or militate against the fact of its general usefulness.

Second. Throughout the coal formation which overspreads Ayr and Renfrewshires, the trap rocks in many places come to the surface. Trap is the geological name for a species of rock which is considered to be an ancient lava. It lay originally far below the coal formation, and when in a liquid molten state, forced its way upwards through them, and in some instances even spread itself over the surface, like a gigantic mushroom, or a broad, thick blanket. Now, wherever this trap rock comes to the light, of course a soil differing from that of the coal measures is formed, a soil which we may confidently state to be at least partially supplied with *lime*. In confirmation of this, I give the results of a chemical examination of several specimens of traps, from various parts of Scotland, made in the Edinburgh laboratory, partly by myself, but chiefly by Mr. Fromberg, the first assistant. These analyses were made at Professor Johnston's suggestion, and under his direction, for the purpose of illustrating this very point; and they do so quite successfully. They all contain lime in three states—carbonate, soluble silicate, and insoluble silicate.

...	Lime in state of Carbonate.	Soluble Silicate.	Insoluble Silicate.	Total Lime.	Total.
	per ct.	p. ct.	p. ct.	p. ct.	p. ct.
Trap from Balcarras Hill, Fife,	0.80	4.26	5.75	10.81	19.21
Trap from Pentland Hills,	8.19	0.12	2.78	11.09	19.74
Trap from Salisbury Crags,	3.02	2.18	2.48	7.68	13.64
" " " decomposed,	0.72	0.71	0.91	2.34	4.16
Trap from Rothesay, Isle of Bute,	0.79	0.41	6.66	7.86	13.97
" " partially decomposed,	0.68	0.51	6.85	8.04	14.27
" " still more decomposed,	0.60	0.68	6.88	8.16	14.49

In explanation of this table, I may say, that the first column represents the lime which was present in the state of carbonate, and of course in a condition to be slowly dissolved by the gradual action of water alone containing carbonic acid, as rain water and the water in the soil always does. The second column represents that soluble in hydrochloric (muriatic) acid, by the aid of heat. This was in the state of soluble silicate. The third column represents that which was wholly insoluble in acid, and only obtained by fusing the powdered rock. This was all in the state of silicate of lime; that is, lime in combination with silica, commonly known as quartz. The fourth column represents the amount of caustic lime, or quicklime, and the fifth the amount of the whole, calculated as carbonate of lime, or common limestone, the form in which it is most familiarly known.

It will at once be obvious from an inspection of this table, that a rock which in every hundred pounds contains from six to ten pounds of quicklime, or from 13 to nearly 20 of carbonate of lime, must, as it gradually disintegrates, influence beneficially the character of the soil which it forms. The carbonate is at once available for the food of plants, and the silicates will in time decompose, and yield up their lime also, thus giving a steady and inexhaustible supply.

It is now easy, after what I have before stated respecting the varied character of the rocks in Ayrshire, to account for the contradictory opinions which prevail there. One farmer may be located upon one of these up-pourings of trap, while another in his immediate neighborhood may be upon the coal formation. The land of the last, being deficient in lime, will exhibit a wonderful improvement on its addition; the former may determine also to try its effect, and after much expense may be entirely disappointed. These two farmers will thenceforth hold entirely different sentiments; the last will protest that lime is of no use whatever, and the first will recommend it in all cases. But as we have seen that the land of the one already contained an abundance of lime, while the other had none, we perceive that both of their views are erroneous. It is only by looking be yond the bounds of a single farm, and taking into view all the circumstances, that such questions are to be decided. Lime in the state of carbonate, or sulphate (plaster of Paris), is a necessary constituent of all fertile soils, and is found in the ash of all our cultivated crops. When, therefore, a farmer finds little or no good effect resulting from its application, he would do well, in place of forthwith condemning it, to seek a solution in the physical condition, or the chemical constitution of his soil.

I might upon this subject present you with many interesting scientific generalizations, but I think it better for the present to leave to the careful consideration of your readers the above interesting illustration of the benefit of scientific investigation to practical agriculture. JOHN P. NORTON.

Edinburgh, Jan. 1, 1845.

SWINEY—OR DISEASE OR STRAIN OF THE SHOULDER.

THIS is an affection not uncommon, but yet little understood. If of recent occurrence it will be seen that the shoulder is *swelled;* if of long standing, that the shoulder is *diminished* in *size*, the muscles having shrunk away. The shoulder is frequently shrunk when there is no disease in it. This shrinking arises from disuse of the muscles. To retain its full volume a muscle must have constant action. Now, disuse of the muscles of the shoulder may arise from two causes. 1st, lameness of the foot or leg; 2d, lameness of the shoulder. If it arise from the foot, no treatment is necessary for the shoulder. It may be easily known if it proceeds from the foot. In such case the horse, when he moves, lifts his *foot clear from the ground;* and when he points his foot forward, he places it flat on the ground. If the injury be in the shoulder, when he moves he *drags the toe of the foot along the ground*, seemingly unable to lift it clear; when he points his foot out, his *toe* only rests on the ground, not the sole of the foot. If the injury is in the shoulder the horse reluctantly turns his head towards the opposite shoulder; this strains the muscles; but he will willingly turn his head toward the lame shoulder, as this relaxes the muscles.

The common causes of shrinking or swiney of the shoulder, when it arises from the foot or injury to the leg below the shoulder, are all the diseases of the foot and leg, which continue long enough to occasion such a disease of the muscles of the shoulder as to occasion their shrinking. Such diseases are foot founder, contraction of the foot, strain of the navicular joint, ring-bone, pumiced foot, sand crack, quittor, gravel, any separation of the foot, in short, any of the various diseases of the foot which induce the horse to favor it and thus use as little as possible the whole leg and shoulder.

The shrinking of the shoulder, where it arises from an injury in the shoulder itself, has but one ordinary cause, viz., a strain of the shoulder. When there is strain of the shoulder, it is known at once Within a few hours after its occurrence the shoulder is swelled, perhaps in its whole length, but generally only at the lower end. The strain lies almost always in the muscles which attach the shoulder-blade to the body; yet the swelling is on the outside; but this arises from sympathy.

When the horse is observed to be lame and it cannot at once be determined where the lameness is, let him be walked, and if *he drag his toe*, it is in the shoulder. Let the shoulder be examined in front; if the affection be of long standing, the shoulder will be seen to be less than the other. If on feeling it, it be found to be free of heat, there will be no fever. The disease is then chronic. If, however, the shoulder be enlarged, it will be found, on feeling, to be hot —the injury is then recent and inflammatory. Where the disease is in the shoulder, and is chronic, it has gone through the inflammatory stage, and is of some considerable standing. The chronic state is rarely cured. It is not unlike rheumatism. For the *chronic state* the best remedy is active *blistering*. This will rouse the vessels to activity. It may be necessary to blister repeatedly, and exercise should accompany the blistering, with good grooming and general care. Let the exercise commence as soon as the blister begins to diminish its discharge. This treatment, continued judiciously and energetically for some time, may cure *chronic* disease of the shoulder. When the strain is recent, and inflammation exists, the horse should be bled from the neck and from the plate vein on the inside of the leg, as near the body as possible. Rest, cooling physic, both purgative and sedentary, should be given—*no blistering* should be allowed. Embrocations of a cooling nature should be applied. No *stimulants* should be applied externally, or given. They but add to the inflammation. When the inflammation is subdued and the shoulder has fallen back to its natural size, the horse needs nothing but rest, with gentle exercise. Let him be turned out, if in the summer, to grass; in the winter, into a small yard in good weather, and a loose box at night in bad weather. It will take him some time to get over the effects and be fit for work again.

When the shoulder is shrunk or swineyed from lameness in the foot or leg, below the shoulder, no attention should be paid to the shoulder. When both feet or legs are diseased, so that the horse seeks to relieve each alternately from pressure, both shoulders will be swineyed; they will be both shrunk, and the breast in front will be diminished and fall in. The treatment in these cases is to be addressed to the place of disease. If in the feet, cure them; if in the legs, cure them. Some diseases in the feet cannot be cured, and, of course, if there be swiney from such cause, it cannot be removed. When the feet and legs are cured, and the horse recovers thereby his wonted action, the muscles of the shoulder will, by exercise, recover their former size, and the swiney be gone.

Among the ignorant there is a variety of remedies for the swiney, as pegging (that is thrusting a knife in the shoulder and blowing in stimulating powders), swimming, setons, &c. A recent writer in the Southern Cultivator says, "introduce the small blade of a common pocket knife (the point of which must be sharp), into the thinnest part of the shoulder, which will be near the upper margin of the shoulder-blade, holding the knife as you would a pen when writing, and scratch up the membrane that covers the bone for a space the size of a silver dollar; the knife may be then withdrawn. The knife may then be introduced in one or two places below the first, and used in the same way, and the operation is over." Now, if the disease be in the shoulder, this method can only cure by rousing the vessels to action. Blistering will do this better, and is more humane and less dangerous. Wounded membranes frequently produce fatal inflammation. Blistering is never dangerous in chronic affections, and therefore is preferable on that score, and by general action does far better. It is done within two days. Scraping the membrane cannot be through its operation short of weeks

Buffalo, Jan. 1845. A. Stevens.

PRODUCTS OF THE SOUTH.

In my preceding article, I dwelt on fruits as an important aid to our resources, not only as adding materially to gratification of taste, but also to health and our pecuniary concerns. I will now notice other matters, which, in my opinion, can be made entirely available for one or the other of the above purposes.

Tobacco.—Though there be many who spurn it, yet it is an article used, and in all probability as little detrimental as some others that are looked over. I possess no data to guide me in relation to the product that can be taken from an acre, but as to quality I can say some little. I have seen it growing here in small patches, have seen and used that cured, and think as to the size of leaf, and smoking qualities, that none superior have I seen in the Atlantic States from Maryland to South Carolina, in Kentucky or Tennessee. I do not profess to be a judge, though I have used the weed in all ways. A few days since, a friend handed me a segar, requesting my examination and opinion; after using it, I gave as my opinion that it was worth in New Orleans $15 to $18 per thousand. I was then informed that it was from the product of Cuba seed, made at Mr. Thos. Sumral's of Hinds Co., and sold by him at $15 per thousand. I have also tried from that made by Mr. Jeff. Nailor, of Warren Co., and without the means of comparison, my memory alone to guide me, I prefer it. I have seen it at Dr. Geo. Smith's, in Warren; in Rankin, in Jefferson—and give my opinion that an intelligent negro can cultivate his tobacco patch and make segars enough in one year, at the price of $15 per thousand, to nett double the wages that he would make at cotton, even at 8 cents per pound.

Rice.—An article that is used in all our country as a luxury, can be grown to any extent here without detracting much labor from the farm, to have it in abundance for all on the farm; and I make no doubt that labor for labor, and land for land, it will feed horses, mules, cattle, and hogs, cheaper than corn will. A friend from near Mississippi city informs me, that he has fed mules on it alone, no other fodder or corn, and that six bundles per day is full feed for a mule whilst at work; and when idle, that three bundles will keep a mule in fine order: he supposes the bundles to weigh not over 6 lbs. His crop of rice was very indifferent, not a fair criterion; yet he gathered about 1700 bundles from about one and a third acres, which would be full feeding for a mule a year. He farther says, that two crops can be cut from the same planting, with an after math that is well worth the attention of cattle or horses. The second crop is not one half as good for grain, but for fodder it is better. My friend and neighbor, Judge Noland, of Warren Co., one of the best farmers in Mississippi, has made this season sixty bushels per acre, and to use his words, "with no more labor to make it than I used in cultivating an acre of corn."

The difficulty is in cleaning to eat; yet I have no question but that mortars and pestles, or a wooden mill, could be attached to our gin-gearing so as to require but little labor.

All know the nutritive qualities of rice; that it is almost the sole sustenance of many of God's people; it is, furthermore, remedial in cholera morbus or diarrhœa. The water from thoroughly cooked rice acts like a charm; it is also a good diet for invalids and sedentary persons—and as to food for stock, will not an acre, producing even forty bushels, feed more stock for a given time, than forty or fifty bushels of corn will?

Wheat.—I might add this grain to these our resources, as it is grown here successfully. Mr McClaurin, of Simpson Co., assured me, that during thirteen years residence here, he had but one partial failure, and that he had grown forty bushels per acre. I am assured by highly creditable witnesses, that they have grown wheat in this and an adjoining county, that weighed sixty-four to sixty-eight pounds per bushel. I have grown some here on good land, the rust destroyed it; on thin land and a bad stand it yielded ten to 12 bushels per acre.

Madder and Indigo.—I might mention these, but why do so about these matters? My friends will not improve on it—they are not so incredulous as *indifferent* to change. They know well that they *can* grow corn, sweet potatoes, cow-peas, &c., yet many, far too many, buy corn, and do not save seed peas or potatoes for planting. The sweet potato crop can be made vastly profitable. The potato will feed everything on the farm, and excepting for man and dog, there is no need to cook it to induce the eating thereof; it will feed horses, cattle, hogs, and sheep, and prove a most valuable adjuvant to the milking qualities of cows.

There is a strange lassitude to well doing in our country, and withal, much pure, unadulterated laziness. My fellow citizens will for one year make enough corn and meat, which of course causes a decline in price; in another year they are buying—they will plant a tree, or fence in a garden, and leave both to be used up by grass and weeds.

There are many who do not relish vegetables, or mutton, or flowers; yet few refuse either the one or the other at our table, and *seem* greatly to admire the last, in our garden. The fact is, they are too indolent. It is no want of time or means; very little time or expense is required to give a superabundance of the first and the last. True, they may not be exceedingly fine, but they can be in plenty; and as to mutton, I am clearly of the opinion, and after reading the opinions of the friends of the north, south, east and west, that Mississippi, if not first in ability to raise wool, is not second to any State in means of raising the best mutton. No one in this region who has from ten to three hundred head of sheep, can tell what his sheep cost to keep them, if we except salt. We can provide green food for them the year round, at little cost of cash or time. We have an advantage in this matter in the cotton region, over any stock country—we can feed sheep on an article that costs us nothing to raise—I allude to cotton seed. This article will feed sheep all winter; and if a bushel of rye to four or five head of sheep be sown in cornfields after gathering corn, say about 1st of October, we can, with but little trouble, keep sheep in excellent order all winter. In this way we can grow a full crop of our staple, and yet rear at least five to ten sheep to every hand.

I have known turnips grown at a near neighbor's, that measured thirty inches in circumference, with only expense of plowing and sowing.

Many of my friends will startle when I say to them, we can raise *hay* in sufficient quantities to admit of exportation. With millet grass, and our southern grass (Bermuda), I have no doubt that we can make hay for sale. I have cut at the rate of four tons of millet per acre, weighed by myself when thoroughly cured. True I never did this but once, and never had choice land sown with it but that once. I have never failed making a fair crop, and think two tons an average crop on good land, with time after cutting to make an excellent pasture of crab grass.

Unless I would undertake more than my time will now permit, I could not enumerate the many articles that we can grow with almost a certainty of profit. I have not touched on madder or silk, beans, pork, or beef, nor has any hint been given as to our facility of putting up barrel and hogshead staves of oak and cypress; the adaptation of some of our streams for manufacturers; the dairy, &c. I could much easier say what would not grow here—one thing I will say, send one of your most industrious, enterprising Yankees here, and if he succeeds in life so as to own ten or more darkies (which he is sure to do), he will assuredly hunt the shade. This is an awful country to bring an industrious man to—so I hear—I have no experience in it. Necessaries are easily made; a competency has heretofore been easy to acquire, and in consequence, all, whether from the White or Green Mountains, or the sandy plains, will soon take their ease and let indolence reign supreme.

M. W. Philips.

Edwards Depot, Miss., Dec. 25, 1844.

THE MIDGE.

I most cheerfully comply with your request, and send you the history of the midge which I mentioned to you, as I have reason to believe its larva has often been taken for that of the Hessian fly, and is so described in some of the journals. This error, if error it be, should be noticed, and thus lead to a fair investigation of the truth.

The larva of the midge is found on the under side of the leaves of wheat, rye, and oats, feeding near the mid-rib, and on the tender portion of the stalk under the sheath, where it shelters itself during its final change. It is very minute, of a bright reddish brown color, moving freely from the point of the leaf to the sheath in search of food. In this state I found a number feeding on a wheat plant, which I carefully carried home and planted under a bell glass, where it continued to grow, protected from the attacks of any other insect, until the larva had passed through the usual changes, and proved to be one of the family of Rove beetles, Staphylinidæ of Linnæus, or Brachelytra of Westwood, who thus describes them:

"These insects are long, narrow and depressed in form, the abdomen is much longer than the elytra, beneath which the wings are of a large size, closely folded when at rest, the head is large, the jaws very powerful * * * the abdomen, from being uncovered by the elytra, is of the same consistence on the upper as on the under surface, and from its length, it is capable of great motion, and is employed in folding and unfolding the wings * * * these insects run and fly with equal agility. They are very voracious * * * some species feed on flowers. On the least appearance of danger, this insect immediately puts itself in a posture of defence, throwing the tail over the head like a scorpion, elevating its head, and widely opening its long and powerful jaws."

I have omitted much of Westwood's description of this family, giving that portion which bears more particularly on the species under notice, at the same time warning you that a magnifying glass is necessary to identify all its parts. This species, in the larva state, may be found feeding on the leaves of wheat, rye, and oats, in great abundance; but in the perfect state it feeds on the flowers exclusively, particularly the oat; I never remember to have opened an oat blossom, without finding from one to three.

During the oat harvest, these insects are borne on the breeze in countless numbers, too minute to be noticed, unless in the slanting rays of the sun they appear like motes in the atmosphere, or when they alight on the face or hand, calling your attention to their shining, attenuated forms, by their sharp sting, which they dart into you four or five times with the rapidity of thought, leaving a succession of painful and inflamed punctures. The injury done by the larva of this insect to the growing plant appears too slight to be noticed; but that upon the blossom may be of more consequence.

G. P.

Cure for Fistula, or Poll Evil.—Clear the cavity as near as may well be, then fill it with powdered saleratus or pearlash.

Cure for Proud Flesh in Wounds.—Take equal quantities of soot and powdered charcoal, and sprinkle liberally in the wounds.

To prevent Must, or Mowburn, in Hay.—Take a number of smooth poles, lay the butt ends outside, so that they may easily be pulled out; let the mow, or stack, settle for two or three days, then pull them out, —it will leave a passage for the air into the hay that will insure it against must or mowburn, for some distance around it.

The above recipes were handed me by Mr. H. Gallup of this place, and have proved successful in many instances, and if you deem them worthy of a place in the Agriculturist you may insert them.

O. Jenney.

Norwalk, Huron County, Ohio.

We are highly pleased with the reception of all such matters from our worthy practical farmers, and solicit a continuation of them. They are among our best correspondents, and the only regret with us is, that they do not write often enough.

Large average weight of Swine.—Having during the present season seen so many notices of the weight of what were considered heavy hogs, reported by the papers of Cincinnati, who prides herself in the sobriquet of *Porkopolis*, I am induced to give you a report from the real "Simon Pures" of the Miami tribe. The truth is, that these monsters cannot be driven more than half a dozen miles to market, and are consequently compelled to seek the nearest accommodation for being salted down. One of the clerks of our enterprising pork packers, Francis P. Tytus, has furnished me a list of 67 farmers in this vicinity, from whom he purchased 1837 hogs, making an average of 334 60-100 lbs.; and when the world can beat such weights, old Butler County will try again. R. H. HENDRICKSON.

Middletown, O., Jan. 27, 1845.

HOME-MADE GUANO.—No. 2.

Liquid Manure.—Besides the carbonate of ammonia, which exists in this in considerable proportions, it contains a large quantity of salts, or the earthy constituents of vegetables; among which, phosphate of lime is one of the most valuable. In the animal economy, most of these materials, which have been taken into the stomach as nutriment, are by the action of the kidneys separated from the contents of the intestines, and pass into the bladder with the urine, thus despoiling the fæces of its most important fertilizing properties. Hence, analytical chemistry has shown, that the urine of an animal is much more valuable as a manure than the solid excrements. Now, although this information, *in part*, may not be a new idea to thinking agriculturists, yet, *in its fullest extent*, it probably is to all who have not, either by direct and accurate experiment, or by the perusal of the best authorities, satisfied themselves of its truth. The remark is common among good farmers, that when cattle are permitted to drop their manure on straw or refuse hay, or turf (any vegetable or earthy absorbents), which is carefully protected from washing or evaporation, it is worth double or treble the same droppings when not so incorporated and treated; yet it has probably occurred to very few of them, that their increased value was due almost solely to the effectual absorption and retention of the urine.

The most economical and efficient method of securing this invaluable ingredient, is by the construction of tanks, of sufficient capacity to hold all that is voided till it can be properly applied. To give it the greatest value, it is necessary that it should undergo fermentation, by which ammonia is developed. This can be effected by having separate tanks, each of which, when filled, should be allowed to ferment, and may then be directly applied to the land, or incorporated with muck till wanted for use. Ten dollars per annum for each cow's urine, has for a long time been given by the close, calculating, and penurious Flemings; and it has been estimated by Professor Johnston, that if all the urine is saved, a single cow will yield 900 pounds of fertilizing materials, fully equivalent to an equal weight of the best Peruvian guano, which has hitherto commanded $60 per ton in the English market. The farmers of the United States ought to be highly obliged to any of their friends who will suggest a more certain and rapid way of making their labor and capital productive, than in the construction of tanks for husbanding the urine of their horses and cattle, and applying their contents to their exhausted fields.

This practice, judiciously carried out, would add largely to the merits of the soiling system, where the urine by this means is properly economised. There is no doubt a great saving of labor to be made in the present manner of managing urine; for to prevent the escape of the ammonia while it is undergoing the putrefactive or fermentative process, it is required to add three times its quantity of water; otherwise a loss occurs in the unmixed of 85 per cent., or nearly six-sevenths of what would in the other case be retained. The addition and subsequent removal of this large quantity of water must necessarily be attended with a good deal of labor; and it will hardly be considered as presuming too much on the prospective developments of agricultural chemistry, to believe that it will hereafter suggest such economical combinations as will enable the farmer to evaporate the large proportion of water which holds the valuable ingredients in solution, and allow him to carry as much of the fertilizing principle on to his fields in a small basket, as he is now enabled to draw with a span of horses in his hogshead.

Since penning the above, the practice of a shrewd farmer, as detailed in a Scotch paper, has fallen under my notice, which, as embodying as practical and perhaps as economical a method of treating liquid manure as is known, I subjoin.

"Liquid manure, if applied upon an impervious or gravelly soil, in a fresh state, is not retained long enough for its decomposition to take place, or for the roots to drink it up. It is put on a liquid manure, and runs off in the same state; but apply it to a soil rich in decayed or decaying vegetable matter, and on which a vigorous vegetation is going on, and it never fails of its extraordinary effects. The plan of administering liquid manures in a perfectly fresh state, is probably the best of any, were it not the continued care and consequent expense necessary in supplying our crops with saturated water in all their stages throughout the year, and were we certain of the exact strength of the solution suited to their wants.

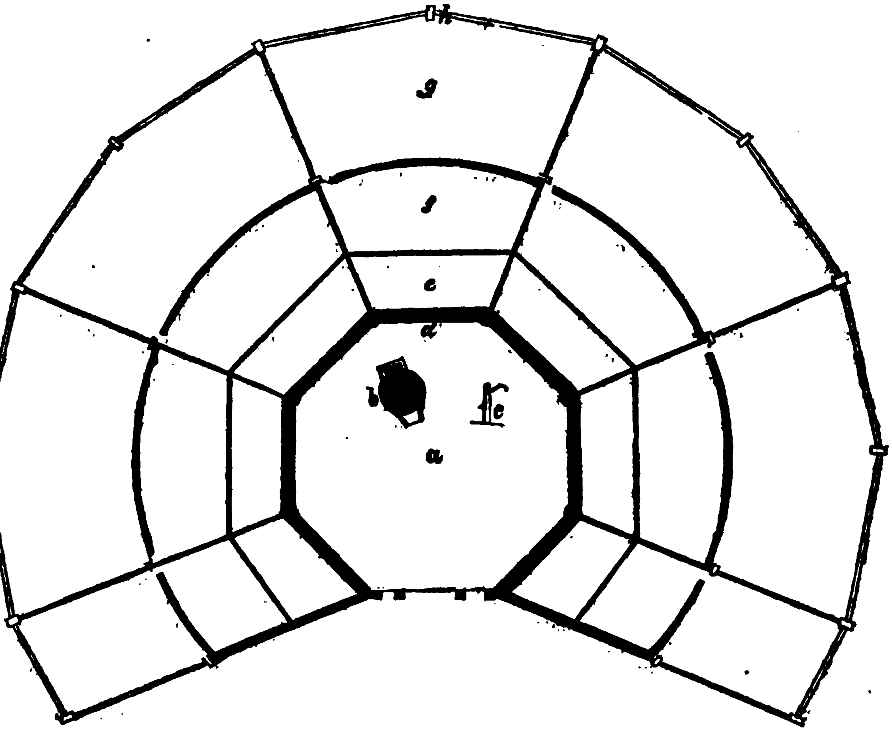
"As we, therefore, cannot apply our liquid manures on the best principle, on account of the expense, we must try the next best plan, that of decomposing them by the aid of decomposed vegetable matter; and this can happily be done, to great perfection, by reducing the vegetable matter to the state of carbon or charcoal—which we make from peat, as being trifling in expense, easily pulverized, and withal an excellent manure of itself. We divide a shed into two compartments, one of which we make water-tight, by puddling the side walls with clay to the height, say, of two feet, and separated from the other compartment by a low water-tight wall or boarding. This is my fermenting tank, which is filled half or three-parts full of pulverized burnt peat, and the liquid manure from the stable, pig-styes, &c., directed into it. This is mixed up with the pulverized peat, and allowed to remain three or four weeks, till the decomposition seems about completed, being occasionally stirred about after the composition has become about the consistency of gruel. The whole is then ladled (with a pole and bucket) over the low partition into the second floor, which is also three parts filled with the carbonized peat; and as the second floor is meant merely as a filter, we have it lower on one side than the other, by which means, in the course of a day or two, the carbonized peat is left comparatively dry. The water having passed off at the lower side, the first or fermenting floor is again filled as before, and the contents of the second floor, if considered saturated enough, are then shovelled up into a corner, and allowed to drip, and further dry till used, which may be either immediately, or at the end of twenty years, as scarcely anything will affect it, if not exposed to the continued washing of pure water, or exposed to the influence of the roots of growing plants. By being thinly spread on a granary floor, it soon becomes perfectly dry, and suited to pass through drill machines.

"The mixing of the carbonized peat with the liquid manure on the first or fermenting floor, it will be observed, is for laying hold of the gaseous matters as they escape during the fermentation; perhaps other substances may effect this more effectually, but none so cheaply. I think by this plan it will be obvious to every one that a great many desiderata are at once obtained. In the first place, you get free of about 956 parts out of every 1,000 of the weight and bulk of manure, by the expulsion of the water; while at the same time you link all the fertilizing properties contained in it to one of the most handy vehicles—light, cleanly, and portable, and possessed of the peculiar property of holding together the most volatile substances, till gradually called forth by the exigencies of the growing plants. Lastly, you get free of the nasty tank, and the abominable hogshead and watering cart, with all its appendages, and are no more bothered with overflowing tank, or overfermented liquid, with weather unsuited to its application. You have merely to shovel past the saturated charcoal, and shovel in a little fresh stuff, and the process goes on again of its own "sweet will;" while the prepared stuffs lie ready for all crops, all seasons, and all times."

I shall speak of poudrette in my next article.

Buffalo, January, 1845. R. L. A.

A PIGGERY.



Ground Plan of Piggery.—Fig. 16.

This neat and tasteful plan of a piggery was prepared for us by W. Leavenworth, Esq., and we must confess, with all our experience in these matters, we think it the most convenient and economical that has yet fallen under our observation. The elevation, Fig. 17, shows a pigeon-house in front on the second story; but this can be dispensed with, and the front as well as back part devoted to anything else desired; or the piggery may be made of one story only. We make no calculation as to the cost of this building, for that will depend entirely upon circumstances; suffice it to say, it may be built as cheaply as on any other plan with equal accommodation.

a, Room for keeping the feed, utensils, &c., 24 feet diameter

b, Boiler, by the side of which tubs for steaming, or receiving boiled food may be placed.

c, Pump. *d*, Trough for feeding.

e, Room in which the pigs eat, 11 feet by 5.

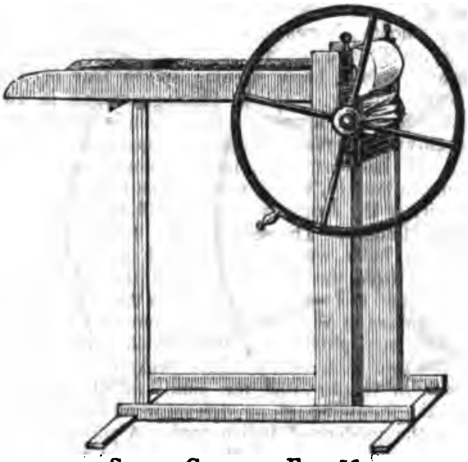
f, Sleeping room, 14 feet by 7. A partition or not, as is desired, can be made between these two. We think one six inches or a foot high quite sufficient; and if this part of the floor was somewhat raised above the other, it would be kept drier. A swing door opens from this to the yard, into which the pigs can go and return to their sty at pleasure.

g, Yard with an open fence, as shown in Fig. 17, or a close one, if preferred.

The pig apartments *e*, *f*, can be made of any required size, as well as the yard *g*.

HOVEY'S STRAW CUTTER.

In regard to my straw cutters, I will briefly state, commencing with No. 1, that the frame and straw box is similar to those that have been in common use, except mine are made in a manner more substantial and of superior workmanship, and joint bolts and wood screws are used instead of nails and pins. The running parts of this machine consist of a cylinder, on which are six spiral knives, fastened by screws to six spiral wings, cast on the cylinder. On the shaft or arbor of said cylinder is a balance wheel and crank handle, which is to give motion to the machine. Immediately above the cylinder of knives is a hide roller, about 3½ inches in diameter, and 6 inches long, which, by means of two screws, can be pressed down so as to come in equal and easy contact with the outer surface of the cylinder of knives, between which the cutting operation is performed. The edges of the knives come in contact with the hide roller as they revolve in connection with each other. This motion serves also to draw in the feed after it has been placed in the box, and makes it a self-feeding machine. This simple combination of a cylinder of knives with a hide roller, constitutes the whole moving operations of this important machine, and performs the double purpose of cutting and self-feeding. But the most important part of this machine may be described as follows:



Straw Cutter.—Fig. 56.

These knives are fastened on to the wings on the cylinder by means of two or more binding screws, which pass through the centre of the knife near each end. A slot is cut out from the hole in the knife, through which the screw passes to the inner edge of the knife, the size of the screw, so that by simply starting the binding screws back a little, the knives can be taken off separately without taking out the binding screws, and by means of two set screws, which are inserted in to the cylinder, directly under the inner edges of said knives, running towards the centre of the cylinder. The heads of those screws are slotted like wood screws, and screwed down nearly even with the outer surface of the cylinder, between the wings. On the heads of the screws, near each end, the inner edges of the knives rest, so that by turning out those set screws with a screw-driver, it will force the knife out from the centre of the cylinder, and by this arrangement all the knives on the cylinder are easily adjusted; and in case any one knife should, by extra grinding, or by wear or accident, become more narrow than the rest, it can be set out so as to be perfectly cylindrical and uniform with all the knives on the cylinder; and when so adjusted the binding screws can be screwed up, and hold them firm against the spiral wings. These wings serve to strengthen the knives and support them in their proper position, by means of which the largest cornstalks can be cut in these machines with ease and dispatch.

No. 1 cutter, I think, will cut about 100 lbs. of stalks, hay, or straw, in twenty minutes, by hand power. The hide roller is formed of the best prepared raw hide, and made solid by slipping hide washers or collars on to an iron shaft, and pressing them together with a pressure of more than ten tons before they are turned off. The spiral position of the knives is such, that one end of a knife leaves the hide roller at the same time the next one approaches it; by this means the resistance is uniform and equal; and in consequence of the convex form of the edges of the knives, the uniform manner in which the cutting is performed, together with the angular manner in which the substances are cut, renders this plan the most rapid and easy of any method now in use for the above purpose. The above described machine is the smallest size that I make at present. The others are made on the same plan, and vary only in size and strength.

No.	1	cuts	100 lbs.	hay, &c.,	in	20	minutes.	Price	$12.
"	2	"	"	"	"	15	"	"	15
"	3	"	"	"	"	12	"	"	20.
"	4	"	"	"	"	10	"	"	25.
"	5	"	"	"	"	8	"	"	30.
"	6	"	"	"	"	5	"	"	35.

The above are estimated to work by hand power, and cut straw and cornstalks with the same rapidity as hay. If water or horse power is used, it increases their power of cutting; for No. 5 will then cut 100 lbs. of hay, &c., in five instead of eight minutes.

No. 1 to No. 6 cut the feed about 1¼ inches long; the other sizes about 1½ inches. Nos. 1, 2, 3, and 4 have six knives on the cylinders; No. 5 has eight; No. 6 has twelve knives. The size of the hide rollers varies from 3½ to 5 inches in diameter, and from 6 to 8 in length, according to size and price of the machines. The number of revolutions required in the above calculation would be, by hand power, about 40 per minute, and about 60 by horse power. Either of the power cutters are capable of cutting a ton of stalks, hay, or straw, in one hour, if it can be put into the box. The cylinder may run with safety from 60 to 100 turns per minute.

The advantage of having the roller above the cylinder of knives is obvious, from the fact that without gearing the crank would not turn the cylinder the right way without turning backwards; and from another fact, that grit or gravel in the hay will not lodge on the hide roller when it is above the hay, and this prevents in a great measure the dulling of the knives. Were the roller at the bottom, or under the knives, the dust would fall into the indentations made in the roller by the pressure of the knives, and in time would become full of grit and gravel; besides, the machines are more simple without gearing, and less likely to get out of repair. Wm. Hovey.

Worcester, Mass., May 25, 1845.

BERMUDA OR BRAMA GRASS.

We received some three months since, from that eminent friend of Agriculture, Thomas Spalding, Esq., of Georgia, a box containing various grasses, &c., all of which we shall endeavor to acclimate here, save No. 2. We must apologise to Mr. S. for the delay attending the appearance of his esteemed favor, as it got misplaced and was overlooked for our two preceding numbers. We should like to know whether orchard grass, herds grass, and red top, grow well in the lower or more southern parts of Georgia.

Sapelo Island, Nov. 4, 1844.

I herewith send you a box of grasses, because they may serve as resting points for my future correspondence.

No. 1. Marked on the side of the box, was introduced into Georgia by Gov. Ellis, in the year 1751. I suspect Bermuda is a corruption of Brama grass, for there is no grass of any kind growing in Bermuda, as I know from having been there myself on public business.

I send you a letter from Mr. James Couper (see below), the only botanist among us, whom I could with great difficulty induce to go into the examination (after I had received from Mr. Crawford the dried specimens), by sending Sir William Jones's 5th vol., 8vo. London edition, with the grass figured and described; 2d vol., of quarto edition, is quoted by the English botanists.

The deduction I draw from that examination is, that others before the Marquis of Hastings, had introduced the Doob grass into England, as Governor Ellis had done into Georgia, and that change of soil and climate, as every observer of vegetable growth well knows, had produced some change in color and form in the flower and seeding of the plant. In truth, we extend the culture exclusively by the grass itself. I am particular upon this subject, as I remember the first box of this grass that was ever carried into the interior, and now whole counties are covered with it, and there is fine grazing where, a few years back, cattle were perishing unless fed. Whenever cotton is given up, as it should be in the hill country of Georgia, it will become a great wheat and farming region. I have seen 1,000 bushels reaped from fifty acres, near Augusta, without manure, and with half the seed that should have been given to the land; and I have known the contractor for the troops of the United States to receive 1,500 bushels of wheat, weighing 70 lbs. to the bushel—this forty years ago, and before the little white wheat was introduced.

No. 2. The Gama grass, utterly worthless.

No. 3. A grass, which I believe is a variety of the blue glass of Kentucky (*poa pratensis*). This is a permanent grass, it is now growing well where I knew it to be growing sixty years ago. It has been neglected, and does not spread naturally, from the intense shade of our evergreen oaks. But I shall sow some seed, and transplant and divide some of the grass this winter.

No. 4. The branches and seed of the tallow-tree of China, introduced also by Governor Ellis into Georgia; it is a beautiful tree, and the seed now ripe. I know it will grow with you. The oil is contained in the seed, which is obtained by pounding the seed and then boiling. You must take off the outer skin and you will then see the ripe seed.

Thomas Spalding.

Dear Sir,—Since writing to you from Hopeton, I have given the Bermuda grass a very attentive botanical examination, and have compared it with the plates and descriptions in Sir William Jones' and Sinclair's works. The result of this examination is, that if the *Durva, Dub*, or *Doob* grass of the Hindoos is not identical with the Bermuda, it differs by a very slight shade indeed. I believe them, however, to be the same, or at most, varieties of the same species. That they are of the same genus and species, there can be no doubt.

I have been turning over my books, and copy from them the following descriptions, which, being in confirmation of your original suggestion, may not be unacceptable to you, although they smack too much of the technical language and dryness of botany. The first is from the *Hortus Gramineus Woburnensis*, by George Sinclair, a work detailing the results of a very extended series of experiments, instituted by the Duke of Bedford, to ascertain the produce and nutritive qualities of the different grasses.

" Cynodon Dactylon. Creeping dog's-tooth grass.
" *Durva, Dub*, or Doob grass of the Hindoos.
" *Digitaria stolonifera.* Creeping finger-grass.
" *Panicum dactylon.* Creeping panic-grass.
" *Specific character.* Spikes four or five, crowded together; corolla smooth.

" *Observation.* The roots are tough and creeping, almost woody, with smooth fibres; stems also creeping to a great extent, matted, round, jointed, leafy, very smooth; leaves tapering, sharp-pointed, ribbed, hairy, a little glaucous, with long striated smooth sheaths, and a hairy stipula; spikes four or five, linear; flowers purplish, shining, ranged in two rows, close and alternate; the corolla is longer than the calyx, very much compressed, opposite."

A. B. Lambert, Esq., in the transactions of the Linnæan Society, vol. 6, was the first to point out the identity of the *Panicum dactylon* with the Doob grass of the Hindoos. The seeds of this highly celebrated grass in India, were communicated to the Duke of Bedford from the East Indies, by the Marquis of Hastings. The seeds were sown in the experimental grass garden at Woburn Abbey, where they vegetated readily, and produced plants which flowered the second year from seed. These perfected seed in the month of October, and the plants raised from this seed the following spring, differed in no respect from those the produce of Indian seed. A portion of the seed was sown in the hothouse, and the plants cultivated there, in order to ascertain the effects of the climate on the habits of the grass. Exposed in the grass garden, and cultivated by the side of the English species, the habit of the Indian plants differed from the former in the shortness of the leaves, which grew nearly flat on the ground, and were of a reddish brown color, instead of the slight glaucous green tint of the native English plant. The foreign plants flower freely every season, but the native ones of this species of plants very seldom, for, during fifteen years, the native plants have twice only produced flowers. In the hothouse, the Indian plants proved of a habit exactly the same as the native plants in the open ground, having the leaves equally as long as those of the latter, of their glaucous color, and not producing any flowering culms. This last fact is a very remarkable one as connected with the long continual effects of different climates on the same species of plants. In the hothouse, more soluble or nutritive matter, and also more vegetable or woody fibre, were afforded by this grass than was afforded by the plants of it, cultivated out of doors in the grass garden." * *

"In the East Indies, the Doob grass grows luxuriantly, and is highly valued as food for horses, &c.; in this climate, however, it scarcely begins to vegetate till the month of June, and the above details show that its produce and nutritive powers here are not sufficiently great to hold out any hope that its valuable properties in the East Indies can be made available in the climate and soil of Britain. Sir William Jones gives a figure of the Doob grass, in his works, vol. 2, p. 58. The essential specific characters of the grass, as exhibited by Sir W. Jones, and those which our figure present, are precisely the same."

Elliott, in his *Botany of South Carolina and Georgia*, places the Bermuda grass as a *Digitaria dactylon*, and refers to the synonyms of *Panicum dactylon* (shown by Lambert to be the Doob grass), and *Cynodon dactylon* (proved by Sinclair to be identical with it). See his Botany, vol. 1, p. 133.

Pursh, in his *Flora Americæ*, describes the *Cynoden dactylon*, *Panicum dactylon*, *Digitaria dactylon*, as synonymous.

Generic character. *Calyx*, two valves, expanding, lanceolate; *corolla* larger, two valves; exterior valve larger and egg-shaped. *Nectar*, truncate. *Spike* (of flower), digitate; flowers, solitary.

Specific character. *Spikes*, digitate, spread out, hairy at their base, flowers solitary, stems creeping.

This description in every respect corresponds with the living plant.

Linnæus, in his *Systema Vegetabilium*, describes the *Panicum dactylon* to possess the same specific character as applied by Pursh to the *Cynoden dactylon*; in fact, Pursh uses his language.

In class and order, the Bermuda grass is *Triandria Digynia*. Its two purple, feathery stigmas, give it the beautiful appearance noticed by Sir William Jones.

The proof of the identity of the Doob and Bermuda grass, is therefore supported by our learned botanist, *Mr. Elliott*, who makes the latter the *Digitaria dactylon*, *Cynoden dactylon*, or *Panicum dactylon*; by *Sinclair*, who identifies the *Cynoden dactylon* with the *Doob grass*; and by *Lambert*, who also proves it to be the *Panicum dactylon*; and still further by *Pursh*, who shows the *Cynoden dactylon*, *Panicum dactylon*, and *Digitaria dactylon*, to be one and the same plant. There is a very close correspondence between the figures given by Sir William Jones and Sinclair. That of the latter is even more like the Bermuda grass than that of the former. The parts of fructification differ only in this, that the two rows of flowers on the spikes are less distinctly marked on the plants than in the plates. In the specimens which I have examined, the flowers are rather imbricated than arranged in distinct rows, as stated in Sinclair's description, and represented in his figure.

I offer no apology for this dry string of authorities, as I am aware that, to a mind like yours, anything which tends to illustrate what is useful, cannot be otherwise than interesting, and that the confirmation of a sagacious conjecture cannot but be gratifying.

With great respect, I am, dear sir, your most ob't serv't, J. H. Couper.

Sand Hills, Wayne Co., 15th June, 1826.

TOO MUCH LAND! TOO MUCH LAND!!

I cannot travel in any direction but I am constrained to make the above exclamation. There is scarcely a farm that I visit, but I see more to be done than the occupant has time or ability to do. The thing I am about to complain of now, may appear to some very trifling; but to me it is a great eyesore, to say the best of it. It is well known, however, that in a flat country, with a clay subsoil, water will find its resting-places where it is left to stand, and freeze over in the winter to make a sliding or skating place for boys, or to be evaporated by the sun in summer, making a barren spot in the midst of a fertile meadow or fruitful field, through the season. Now there is scarcely an acre of land to be found, not swampy (for of this I am not writing), but may be drained of its surface water by a single furrow leading into a ravine, either natural or artificial, taking the furrow or sod which is turned over, if in a meadow, to the manure or compost heap, throwing plenty of hay chaff into the furrow which immediately sods over, and you will scarcely perceive it at a little distance, although you may have occasion, in some cases, to run two or more furrows, and even to use the spade a little occasionally. The great excuse I know is, we have no time for these trifles. Then throw a few acres of your tillage land into mowing or pasture, cultivate less land and do it better, and you will find more money in your purse, besides having a beautiful landscape to look upon. Octogenarian.

The following communication was sent us by private hand at the time of its date; but for some reason or other, of which we are not informed, was detained in Albany nearly one month before being mailed. Had it been promptly forwarded, it would have appeared in our February No. The public may depend upon the Herd Book being published as proposed, a number of gentlemen in this State having determined with Mr. Allen upon its issue, even if it only records the pedigrees of their own cattle; and those who delay sending in their pedigrees now, will not have an opportunity of doing so again for years, which will unquestionably be a cause of deep regret to them.

TO BREEDERS OF SHORT-HORN CATTLE.

In the month of May last I proposed, through the columns of the American Agriculturist, and other papers, to publish an American Herd Book, provided a sufficient demand for a work of that kind should be made in the manner there indicated. At the time I wrote the proposition, I had little confidence that it would be met with any general zeal or approbation, even by the breeders of Short-Horns throughout the country: and in this I have not been disappointed. It is apparent that a lethargy pervades among too many of our once spirited cattle breeders, on the vitally important subject of preserving in an enduring form the genealogies of their individual herds; a course which, if persisted in, will ultimately lead, not only to their destruction, but to a large pecuniary loss to themselves, and awaken, when too late, deep and lasting regrets.

But the zeal of our American breeders is not altogether lost. A considerable number of enterprising and spirited gentlemen have manifested strongly their desire that the work shall proceed; and with characteristic liberality proposed such a patronage as shall procure its publication

I propose, therefore, to commence the compilation of the Herd Book, as soon as sufficient material shall be transmitted to me for a commencement; and I now request all those gentlemen who wish their animals registered, to make out plain and distinct pedigrees of their stock, with all necessary references and particulars that may be important touching their lineage; and, if foreign animals, the date of their importation, and by whom made, together with such other facts as will best illustrate their history, &c. It is to be observed, that the object of this work is not to *establish* pedigrees, but to perpetuate them; and it may at once be remarked, that any animal whose purity of blood is not properly sustained, cannot be admitted within its pages. The English Herd Book was first published in 1822. Previous to that time, and for a few years immediately following, many valuable animals from among the best families of well-descended Short-Horns in England were imported into America, whose names and pedigrees are not to be found in its columns. Many breeders in England, not then appreciating the value of such a work, neglected to register their cattle, and these remained thus unnoticed, in many instances altogether, and in others, until the supplementary volumes were published. The descendants of those importations, preserved in their purity, and their history properly authenticated, will be admitted. But in all cases where references cannot be made directly to the English Herd Book, such facts and references as will place the lineage of the animals named beyond dispute, will be necessary to accompany the registers.

In one particular this will differ from the English registry. That work has neither note nor comment. To all but the initiated in Short-Horn lore, the pages of the Herd Book are as a sealed volume in all that relates to their origin, history, and present condition. Names of animals are often inserted without any reference whatever, apparently for no other purpose than to establish them as "Herd Book cattle." It will be otherwise in this. Interesting facts and illustrations will accompany pedigrees as they may occur, throwing light and information such as to place everything relating to this noble breed of cattle in the most attractive form, and develope in the best manner their advantages to the American farmer.

In all cases where the parties are unknown to the subscriber, either personally or by correspondence, they will please to give the name of some distinguished breeder or citizen of their own or a neighboring State, as a reference. This is not required through any suspicion of the entire integrity of any gentleman who may offer his cattle for registry, but as a rule for the mutual protection of each one who desires a true and unimpeachable record of Short-Horns (as far as it goes), in America.

As the magnitude of the work (in pages), will not be known till the materials are all collected, the price cannot be exactly stated; but at all events, it will not exceed three dollars per copy, as noted in the prospectus last May, deliverable as there stated.

All pedigrees, &c., are requested to be transmitted (if by mail, POST PAID), to me at Black Rock, N. Y.; or, if more convenient to the parties, to A. B. Allen, at the office of the American Agriculturist, 205 Broadway, N. Y. city; or to Caleb N. Bement, American Hotel, Albany, N. Y., who will duly forward them to me. The terms for registry will be one dollar for a single animal, and fifty cents each for any larger number. To persons having ten or more animals, with simple pedigrees, a liberal deduction will be made from this last price, according to number. *The money invariably to be enclosed with the pedigrees.* Accompanying the pedigrees, the number of volumes subscribed for is also requested.

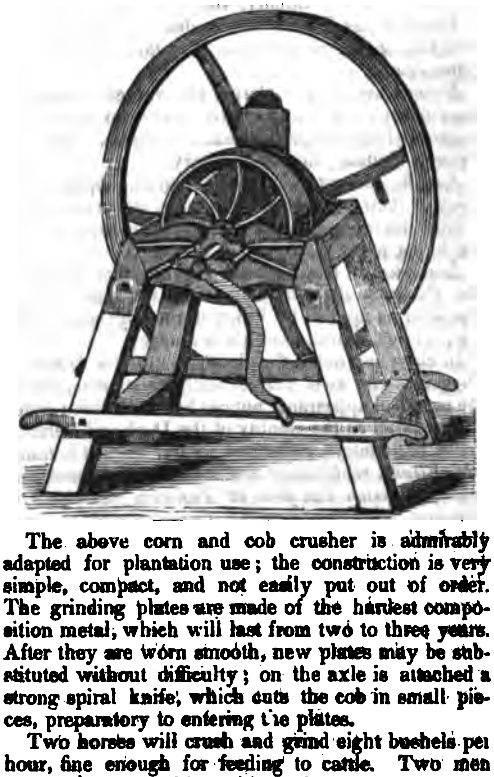
All papers to be forwarded as soon as possible: at all events before the first of April next, as the work will be put to press to be delivered to subscribers by the first day of June ensuing.

The insertion of this notice is respectfully requested in the Agricultural papers generally, a copy of which to be sent to me, for which a copy of the book will be presented. Any gentlemen who feel an interest in this subject, will do a favor by giving information of this proposed publication to any neighboring breeder of Short-Horns who may not otherwise obtain it.

LEWIS F. ALLEN.

Black Rock, January, 1845.

CORN AND COB CRUSHER.—Fig. [illegible]



The above corn and cob crusher is admirably adapted for plantation use; the construction is very simple, compact, and not easily put out of order. The grinding plates are made of the hardest composition metal, which will last from two to three years. After they are worn smooth, new plates may be substituted without difficulty; on the axle is attached a strong spiral knife, which cuts the cob in small pieces, preparatory to entering the plates.

Two horses will crush and grind eight bushels per hour, fine enough for feeding to cattle. Two men can work this machine with good success.

Directions.—1. Put on the balance wheel, minding that it is screwed up firmly.

2. Secure the machine to the floor or ground with wooden cleets and braces, and so situated as to have the pulley to range on a line with the horse power band wheel.

3. Put the machine in motion, then feed the tube with ears of corn and screw up the side thumb-screw regularly until the grinding plates barely touch—if screwed up too close, the plates will wear out rapidly

ly, turn hard, and produce no material advantage: when set properly it will grind about eight bushels per hour.

4. See that the gudgeons are kept oiled with best lamp or sweet oil.

5. The proper speed to drive this machine is two hundred and fifty revolutions per minute, which cannot be accomplished except by horse-power. Two men can work it if the screws are slackened; the speed and grinding, however, will be slow, and the performance in proportion.

6. If the band stretches and becomes slack, move the crusher farther off.

7. Should the knife clog up and fail to operate, it may be cleaned out with the fingers, a stick or pointed iron. Should the plates clog (which may be the case if damp corn is ground), remove the band-pulley and the cap that covers the plates, and briskly rub through them a flat brush or stick.

Price, with one set extra plates, $30.

R. SINCLAIR, JR., & Co.

Baltimore, Md., Feb. 13, 1845.

GUANO.

Advantages of Guano, &c.—Necessity of Fixed Prices.—I have read with much interest the Essay of Dr. Gardner on Guano, and beg leave to express my thanks for its publication, as also for the other contributions he has made to the cause of agriculture. I am unable, however, to coincide with him in opinion, that farmers should not become purchasers of guano, valuable as he admits it to be as a fertilizer. They are already, and will no doubt continue for a long time to come, purchasers of other fertilizing substances. *Plaster,* for instance, has for a long number of years been extensively used in various parts of our country, not always with profitable results. *Clover seed,* too, which may be regarded as an indirect fertilizer, is an article, in the purchase of which large sums are annually expended. In other forms, particularly in the vicinity of towns, the introduction of extraneous aid to the fertility of our soils has become a somewhat general practice. In the present state of agriculture then, the wisest policy would seem to be to encourage the making of such outlays as will yield the highest interest on the investment, and enable the farmer to prosecute the work of improvement which he has commenced. If guano, applied to a field of wheat in the fall or spring, will give an increased product equivalent to the cost of the manure, and at the same time secure the crop of clover, the farmer would unquestionably be a gainer; for a most important means of future improvement will at once have been obtained, and when the crop of clover is thus secured, clover seed for future use may be considered as secured also. Every farmer looks upon his soil as in the safe line of improvement, when he can get his clover fields to flourish. Will plaster, or putrescent manures in any quantity he can reasonably hope to make, produce this result with any certainty? Plaster certainly augments the vegetable growth where it acts favorably, but not the quantity of seed in the same proportion, if at all. For this reason, those who use plaster are almost always purchasers, instead of growers, of clover seed; and after the lapse of a few years, more or less, the plaster ceases entirely to act, and the clover to grow. I would therefore respectfully submit whether it would not be better to promote the use of guano on such of our lands as stand in need of foreign aid? If lime, or marl, or ashes, were at hand, there would be less necessity to seek for other substances, farther than the land could supply within its own limits—such as litter, woods-earth, grass, clover, &c., in addition to the manure heap. Even then, guano would expedite the work of improvement. But in the absence of those bases of sure and permanent fertility, guano might be most profitably used on a large proportion of our poor soils, either in combination with plaster, or as a substitute for it—much more expensive, it is true, but far more certain and powerful in its effects.

But then the question may arise, is not the value of guano overrated? Can it be relied on to produce the astonishing effects which have been recorded of it? On this subject every farmer is competent to form a correct judgment, after carefully examining the testimony which has been published. In England and France it has been in use to a great extent; accurate and multiplied experiments have been made, and the results laid before the public. No more decisive evidence could be adduced on any doubtful or controverted point, and by common consent the practices of English agriculturists are entitled to great weight in our own country.

The chief object, however, which I had in view in writing this communication, is to suggest to the editors of agricultural journals in New York and Boston, the propriety of giving the prices of guano of the different varieties, either under the head of Prices Current, or by advertisement of the importers.(*a*) Farmers would then know at once what they have to pay, and whether they could afford it. In England, the value of "TILLAGES" is regularly quoted; Wm. K George, of Baltimore, who is the agent for the sale of Peruvian guano in the United States, makes known his prices specifically, as per quantity, and these correspond with the prices in Liverpool. This is acting openly and above board. A contrary course is calculated to lead to the suspicion that the importer has no fixed price, but would be willing to receive one price from one purchaser, and another from another. The effect is injurious to the interests of both importer and consumer. In Baltimore, Richmond, and Petersburg, we get guano at £10 sterling per long ton, by the quantity, which is about two and one fourth cents a pound. Is the African guano (which is understood to be the variety brought into New York and Boston) sold at rates corresponding to the Liverpool prices for Ichaboe guano? namely, £5 to £5 10*s*. per ton.(*b*) I would like, amongst others, to call the attention of the editor of the N. E. Farmer to this matter, as he has rendered good service in promoting the introduction of guano into this country.

T. S. PLEASANTS.

Petersburgh, Va., Feb. 8, 1845.

(*a*) Our correspondent will notice that the prices of guano, bones, plaster, salt, and several other fertilizers or "*tillages,*" are always to be found in our price current; in addition to this they are frequently advertised.

(*b*) No; it is not. In our judgment the African guano is held too high, considering its inferiority to the Peruvian. The price of Peruvian is fairly fixed, and corresponds with the Baltimore price. See Mr Bartlett's advertisement in this No. of our paper.

MAKING MANURE.

Many important suggestions have recently been made in regard to the management of farms; this all indicates improvement, or at least, a desire for improvement. In this general strife to excel, I perceive the farmer sometimes overlooks important realities, and grasps at profits that are imaginary.

Within the past year much attention has been given to the subject of manure. Many schemes have been tried to produce the largest quantity of the best quality at the least expense. No doubt some of these experiments have resulted favorably, and will prove ultimately of vast importance to the community, while others have proved an entire failure. Now my motto is, "a penny saved is as good as a penny earned." By a little care, much of this indispensable article may be saved, that on many farms through neglect is suffered to be lost. All farmers do not avail themselves of the advantages they have for making and saving manure. The barn-yard is the grand repository for manure, and when the farmer improves all the advantages to be derived from this source, it is certainly advisable to adopt other means to enlarge and improve his manure heap. Observation teaches me that it is impossible to estimate the exact loss of that man who pays no regard to the overflowings of his barnyard. Often have I seen the yard well filled with litter for the comfort of cattle. This is commendable, for it serves another important purpose, by increasing the quantity of manure. This seems to satisfy, so far as concerns yard manure. Apparently no loss is apprehended from the freshets and thaws of the spring rains.

This is the great mistake; the yard overflows, and away goes the richest part of the manure to fertilize—perhaps, a bog swamp, or may be some public road. I am sustained in the assertion that the most valuable part of the manure is thus lost, by the fact that the liquid manures are the strongest, and that they unite and pass off with the surplus water. Thus the whole mass of straw, &c., becomes drenched, and a great part of the sediment goes to enrich, perhaps the ocean. The manures are thus robbed of their alkalies and salts. The remainder is probably not worth half as much now as before the overflowing took place.

To remedy this evil, I would suggest the propriety of preparing a reservoir contiguous to the lower part of the yard, sufficiently large to retain the overflowing. Puddle the reservoir with clay, or prepare it in some other way to prevent absorption. The water and sediment thus secured, possess all the properties of manure. When the weather will permit, return the water from the reservoir to the yard, water the whole mass of straw, &c., which by this time has become somewhat dry, and will readily absorb the liquid of which it had been robbed. Thus the lost being found and returned to its owner, restores all the value that had been before possessed. I am of the opinion that by adopting this method, farms will add at least fifty per cent. to the value of their yard manures. B. C. D.

Trumbull, Ct., Feb. 5, 1845.

Asparagus.—To improve the flavor of asparagus, and make it more delicate and tender, spread salt over the beds early this month. In addition to its value to asparagus, salt is beneficial in destroying insects, and kills several kinds of weeds, and checks the growth of others. It is also a good manure to the land.

WESTERN CALENDAR FOR MARCH.

The hemp-brakers should be still kept in motion every day that is fit for cleaning hemp, nor should the plows be suffered to stop. As some of the hemp-brakers must now be put to the plows, others must be hired to take their place at the hemp-brakes, so that both operations may progress together. Hemp-braking, if possible, should be finished this month, or early in the next; all hands will be required to assist in pitching the crop, and cultivating it in a proper manner. If the weather is not suitable for hemp-braking, all hands not engaged at the plows should be employed in making rails, repairing fences, and clearing up ground for the plows, if any such clearing is necessary; and this work should progress at all leisure times, when the ground is too wet to work, while any such repairs are necessary, and hands can be spared for the purpose.

The stock must be attended to as usual; but about the middle, sometimes the first of this month, in latitude 39°, sheep will do well upon pasture alone, especially if no stock has run upon it during the winter, or at least not later than the middle of January. Lambs should not be allowed to drop before the last of March, unless they are raised for the butcher. The ewes having now a good bite of pasture, will have a full flow of milk, and no lambs will be lost, or none of consequence.

If the season is a favorable one, and the ground not too wet, the sowing of hemp may commence about the middle of this month. Early sowing produces the *heaviest lint*, and although hemp sown as early as the middle of March, is liable to be checked in its growth by cold, dry, frosty weather, and will not, therefore, attain so great a height as that which is sown later, yet, in general, it produces a good yield of lint, and of first rate quality. Corn may also be planted from the middle to the last of this month. Severe frosts will nip the top blades, but hardly ever injure it to such an extent as to prevent it again growing. Early planted corn is much less liable to be injured by long summer drought, and is more certain of making a good crop than that which is planted late. Early planting is, therefore, strongly recommended. Early in this month (if not already done in the previous month, which would be better), tobacco growers must burn and prepare beds for sowing tobacco seed for plants. To bring these forward early, rich new ground, with a southeastern aspect, should be chosen. The beds, when sown, should be lightly covered with fine brush to keep them moist, and protect the young plants from frost. Early ripe tobacco cures of a finer color, and makes the most valuable article, hence the importance of having early plants. Early in this month, or late in February, which is better in latitude 39°, clover seed should be sown on growing wheat and rye, at the rate of a bushel of good clean seed to each ten acres. If sown with oats, it will do later, and may be put in with the oat crop whenever the ground is in suitable condition. Other grass seeds may also be sown early in this month. Timothy would do better in February, and Salem grass also. A. Beatty.

Prospect Hill, Ky.

Ladies' Department.

COUNTRY VISITING.

BY MRS. KIRKLAND.

There is hardly any country village so small and unambitious, as not to have its debating society or its literary effort of some kind. Many a young man who has had good success in life, has ascribed the figure he has been able to make in court, or his reputation as a teacher, or his acceptableness in the pulpit, to an early opportunity for practice in his native village, and the taste for literature which naturally grows with such efforts.

This is excellent; why then confine it to young *men?* Why should not young women, too, make some attempt at improvement, in a mode suited to their position? We should never recommend to them debating societies or lyceums, but why should they be debarred from all social literary enjoyment?

Visiting is, as we all know, one of the chief of country pleasures. There is no girl so poor or so hard-worked, that she cannot, once in a while, make a sociable afternoon visit; and among the daughters of able farmers, perhaps, it is not too much to say, that an average of two afternoons per week is thus spent. After the day's business is well over, and the soil of the morning is carefully banished from person and dress, nothing is more natural and common than for the daughters of the house, and perhaps the mother too, to prepare themselves for a visit either at home or abroad; and among the plainer farmers, the knitting-work, and among those rather more ambitious, the neat bit of sewing, or even fancy-work, is taken in hand by way of sweetening leisure by some light employment. But what occupies the thoughts at such times? and what conversation cheers these golden hours of rest? As to thoughts, let us guess.

"I wonder," thinks the mother, "where that brood of turkeys has strayed to! Jem had no business to let them out! and the hens have got a trick of laying away too. We sha'n't have an egg. Mary!" she says, turning to her eldest daughter, "I don't believe the boys have ever hunted for eggs in that hole by the lime-kiln!"

Mary, thus withdrawn from a pleasing anticipation of the weaver's bringing home her new bedquilt, promises to go herself egg-hunting; and forthwith her thoughts branch away into some "mingled yarn" of equally valuable meditation, while the younger girls are giggling over the recollection of how Joe Pullen "carried on" at the minister's donation party.

Presently some of the neighbors come in with their work to sit the afternoon; and after they have taken the bandanna handkerchiefs off their heads and arranged them in their laps (an odious habit this, by the by, of wearing pocket handkerchiefs in place of bonnets), and settled themselves near the windows as the place of honor, they keep the ball of conversation rolling, as well as the ball of yarn, and the sum and substance of all they have to say is usually no more valuable than such as we have described.

Now why should this useless twaddle fill up the minds, and supply the talk, of intelligent women? They have usually had a tolerable school education, and those whose advantages are least, can read tolerably. Why not then endeavor, by the aid of books, to provide some materials for conversation better than this? The evil is greater than may be supposed; for so powerful an engine as conversation can hardly be of indifferent operation. When it is simply frivolous it is injurious; but when it runs into scandal, ferreting out the faults and discussing the frailties of a neighborhood, it becomes indeed a curse, justifying the apostle's expression, "set on fire of hell."

How many of the lapses from virtue which take place in the country arise from the habit of suspecting and whispering evil of others, we cannot determine; but those who have lived among people whose conversation had no legitimate and proper materials, can testify that it is but a step from frivolity to corruption, in talk as in manners. How advantageous then would be the introduction of well selected books into social visits!

RECIPES.

Brawn or Head Cheese.—Blanc-mange.—Pig's-foot Oil.—Sore Throat.—Souse.—In a farmer's kitchen the stale adage is often verified, "God made nothing without its use," and the farmer's wife can testify there are various uses to which one thing often may be applied. An instance I can supply from my late country observations. Boil pig's feet—a dozen of them if you have them—for several hours, till the bones can easily be removed. Strain the liquor from them and set aside to cool. Remove the bones carefully, and reserve equal portions, if you choose, for souse and *brawn or head cheese.*

To make the latter, chop moderately fine, add sage and thyme, or sweet marjoram, plenty of pepper and salt, and if you like, a trifle of spice and a glass of wine. Tie all firmly when well mixed, into a crash cloth, which must first be well wrung in cold water, and let it stand in a press for twenty-four hours. You have then a handsome mould of head cheese.

A delicate *blanc-mange,* not inferior to the best isinglass, may be made of the jelly formed by the liquor when cold. From this you must first skim every particle of *oil,* which must be carefully preserved as it forms—

An excellent remedy for *sore throat* or *croupy* affections, externally applied, or simmered with molasses and vinegar, to give your children when the case demands it before retiring at night.

I see it lately asserted, that cattle's feet prepared in the same way for boiling as pig's feet, afford an equally good jelly for blanc-mange.

To make souse, add to the feet when well boiled, the pig's head. After boiling four or five hours, remove from both all the bones, and place the whole in a stone jar. Boil in vinegar a few cloves or any other spice, with pepper and a little salt; mix with this a little of the liquor in which they were boiled, to prevent too great acidity, and with this liquid cover the meat. Cut in slices when you use it, and after heating in a frying-pan, pour off the liquid and brown it; or if you prefer, dip the slices in batter and fry in a pan rubbed with butter or lard.

Prosa.

To Improve the Flavor of Coffee.—To each pound of roasted coffee add forty to fifty grains of carbonate of soda. In addition to improving the flavor, the soda makes the coffee more healthy, as it neutralizes the acid contained in the infusion.

GARDENS.—FLOWERS.

I trust, ladies, you will be enabled to induce the editor to keep up your department. It was the many valuable articles addressed to you in that old, but valuable work, the American Farmer, near twenty years past, which attached me greatly to agricultural publications. In our delightful winter climate, we are not without flowers all the year round. I find on page 3, of what I term my horticultural book for the present year, the following flowers out on the 3d of January, in the open air—the yellow jasmine, the violet, the flowering pear, the hyacinth, and the rose. In our vegetable garden, I find on the 4th page of the above work, that our cabbage plants, lettuce, and the green peas were up on the 4th inst. It is only necessary in this delightful climate, to use proper industry, not only to be supplied throughout the year with every kind of the finest vegetables, but it is in our power to have the most beautiful flower gardens; and how much it would add to the pleasure of life, if a taste for flowers could everywhere be cultivated! It would add to one's years, it would make us love home, we should feast our senses on the beauties of nature, and be with nature's God. How delighted I am when travelling through the country, to see the houses surrounded by handsome flower gardens; to witness the beautiful vines entwined around the windows of the cottage, and on the walls of the mansion. What a delightful employment for the fair ladies of our country! I trust that some of your numerous correspondents will take up the subject and do it the justice its great importance demands.

Alexander McDonald.

Eufala, Ala., Jan. 6, 1845.

Boiling Potatoes.—Not one housekeeper out of ten knows how to boil potatoes properly. Here is an Irish method, one of the best we know. Clean wash the potatoes and leave the skin on, then bring the water to a boil and throw them in. As soon as boiled soft enough for a fork to be easily thrust through them, dash some cold water into the pot, let the potatoes remain two minutes, and then pour off the water. This done, half remove the pot lid, and let the potatoes remain over a slow fire till the steam is evaporated, then peel and set them on the table in an *open* dish. Potatoes of a good kind thus cooked, will always be sweet, dry, and mealy. A covered dish is bad for potatoes, as it keeps the steam in, and makes them soft and watery.

Pickling Eggs.—In England, at the season of the year when the stock of eggs is plentiful, they cause some four or six dozen to be boiled in a capacious saucepan, until they become quite hard. They then, after removing the shells, lay them carefully in large mouthed jars, and pour over them scalding vinegar, well seasoned with whole pepper, alspice, ginger, and a few cloves or garlic. Then, when cold, bung them down close. In a month they will be fit for use. Where eggs are plentiful, the above pickle is by no means expensive, and as an acetic accompaniment to cold meat, it cannot be outrivalled for piquancy and goût by the generality of pickles made in this country.

The above is doubtless a very good method of pickling eggs; but for our part, we prefer putting them down in salt, after dipping them in whitewash.

Baked Beans.—Shall I give your readers a hint or two for a very homely, but even to epicures sometimes, a very palatable dish if properly prepared? Carefully select and soak your beans the night before you wish them for the table; wash them thoroughly the next morning, and put them over the fire to simmer immediately after breakfast. When they have come to a boil, drain them carefully through a cullender, then add fresh hot water from the teakettle, with a suitable piece of salt pork, and let them boil slowly till quite soft. Place the beans, with the liquor in which they were boiled, in a deep baking dish with the pork in the centre. The latter must first be neatly cut through the rind in cross strips a third of an inch in diameter. Bake them two hours in a moderate oven, or if you prefer the orthodox Connecticut mode, bake in a brick oven with your bread, &c. They may remain in all night with advantage.

Prosa.

A Fruit, Vegetable, and Flower Market.—A project is in contemplation in this city, which depends greatly on you, ladies, to carry into effect; and that is, the erection of a market for the sale exclusively of fruits, flowers and vegetables. Such markets are to be found in most of the cities of Europe, and are places of great pleasurable resort. No person can now visit our markets for the purchase of horticultural productions, without being disgusted with the smell of fish and offal, and the sight of meats and other things which are extremely disgusting to the refined. A market devoted exclusively as designed above, of handsome architecture, with a fountain playing in the centre, would soon become a place of delightful and instructive resort for thousands of our citizens who never go near them now, except when necessity forces them to do so. In case this goes into operation, women and girls should alone have the privilege of occupying the stands for the sale of all articles.

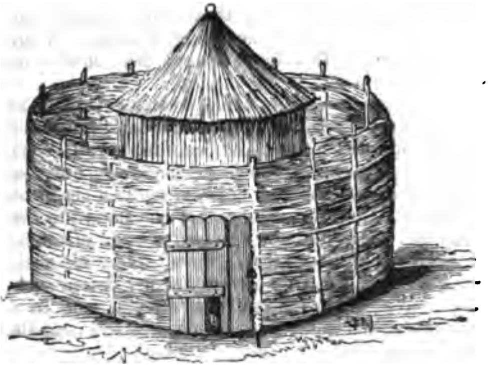
The Garden.—This is usually the peculiar care of the ladies, and when well cultivated, it adds greatly to the pleasures and comforts of a country home. One of the first things to prepare this month is hot beds, the construction of which is so familiar and well known, that we need not go into particulars regarding them. The most important things in their management are, to give the plants plenty of steady heat at the bottom, and air on top, with a sufficiency of water; and yet be careful not to check their growth or expose them to sudden changes. Pretty much all that is necessary to be done this month, will be found under the head of the Northern and Southern calendars in our last volume, to which we must refer our fair readers.

Liquid Manures.—One of the best things to make all kinds of shrubs, vegetables, and flowers grow, is to water them with a liquid manure, made in the proportion of a pint of soot to a gallon of water. If a table spoonful of salt is added to this it will be all the better. Guano is now coming into extensive use, and may also be made into a liquid manure by steeping one pound of it in a gallon of water. Liquids thus prepared are quite powerful, and must be used in moderate quantities *around* the plants and not *on* them.

Boys' Department.

Boy's Poultry-House. The cheapest affair for a poultry-house, and the most easily constructed, is given by Mr. Ames in the Farmer's Library. Any handy lad, he says, can make one in a few hours, and the cost is very trifling.

"First, let a convenient and suitable place be chosen for the fowl-yard; not in a dark, shady corner, but in a light, airy situation; and, considering the number of fowls intended to be kept, mark its size: it is not well to have too many together, as the cocks will disagree. A stock of 25, containing 2 or 3 cocks, is sufficient for one house; if more are to be kept, erect another pen in a different direction; accordingly, mark out a place in the form of a circle of 18 or 24 feet in diameter. [Fifty feet would be better, so as to allow the sun to shine within more freely.] On the outside of this circle cut a trench 3 or 4 inches wide and deep, and plant poles 12 or 18 inches into the ground every 2 feet. These poles should be as thick as a man's arm, and 8 or 10 feet high, thus forming a circle of poles standing on end. Choose a space to the south, between two of the poles, for the purpose of a door, and the poles on each side of this space should be straight, and a little stouter than the rest; then go to the swamp or brushwood, and cut a good parcel of it, leaves, small twigs, and burrs, all just as it stands. It ought to be 6 feet long, that it may reach three of the poles, and if longer all the better; then having conveyed it to the standing poles, commence by lacing some of the stout and straight ones round the poles in the trench, alternately in and out, like basket-work, going the whole round, the door-way of course excepted. When you have got it 8 or 10 inches high, stamp it well down, making all tight and firm, that the smallest chicken may not be able to pass through it. Go on thus till you get it 5 feet high, then pass the circle of brush over door-way and all, to make it firmer and stronger, continuing it up to the height of 8 or 10 feet; the upper may be lighter and not braided so close; braid sometimes on one, and then on the other side of the uprights. Upon this principle a yard may be made of any size, and in any situation, for really nothing. Any boy can make a door for this, and fix it with hinges from the sole leather of an old shoe.



Boy's Poultry-House.—Fig 20.

"Then comes the fowl-house; this should be placed in the centre of the circle, that no vermin may get at it, and that the fowls may find shade and shelter all around, as the wind or sun may happen to be. A few stakes, a little more brush, and an arm-full of straw for thatch or roof, will make this answer; but one formed of boards with a good tight straw thatch, would be far preferable. Mind, I say, '*straw thatch*' for roof, as it is far the best thing; and if properly done, it will last twenty years. The sun, rain, and snow, have no effect on it. It is very warm in winter, and lets no heat through in summer. It should be formed of good, clean, long straw, clean-threshed, and as little broken as possible; wheat or rye is preferable: put it on 10 or 12 inches thick; I have seen it 18 inches. Tie it closely and securely with strips of white oak or hickory bark well twisted; but this every one knows how to perform. Mind and let the roof have a good pitch, or in other words, be very steep, that snow and rain may be quickly thrown off. To make this warmer in winter, the sides, either outside or within, may be laid with cedar brush and salt hay tacked up to the boards; or made of brush wicker-work, and then plastered outside and in with clay and short salt hay; and when dry, a good coat of lime white-wash. This gives a neat, pretty look, and is warm and cheap."

The Gapes, or Pip.—Mr. Bement, in his Poulterer's Companion, has gathered together all the supposed causes of this fatal disease in chickens, which we shall condense in a few lines for the benefit of our young readers. 1. It is attributed to catarrh, similar to the influenza in human beings; producing a thickened state of the membrane lining the nostrils, mouth, and tongue. 2. Small red worms in the windpipe. 3. Breeding from *old* cocks [which is doubtless an *old* woman's notion]. 4. Scanting the chickens in their food. 5. Giving them too much Indian meal pudding. 6. Want of pure water.

The symptoms of the gapes are so various, that we have no doubt they should be classed as distinct diseases, the same as physicians do those of the human family. It would be quite absurd to say that a child was affected with scarlet fever, when it only had a cold; or that it was suffering with worms, when gasping for breath with the croup; and yet these diseases do not seem at all more distinct to our comprehension, than those mentioned above under the head of "Gapes or Pip." It would be well worth while for some skilful surgeon to investigate these diseases, and write a work upon the subject.

The remedy for the catarrh, is to tear off the scale on the tongue with the nails of the forefinger and thumb, and then push down the throat a large lump of fresh butter which has previously been well mixed with Scotch snuff. But we think two or three teaspoonfuls of gravy, made of equal parts of butter, honey, and vinegar, would be better. To remove the worms, hold the chicken with his mouth wide open over tobacco smoke from one to two minutes; or what is better and more humane, tie the wings and legs of the chicken to prevent its struggling, take a small hen's feather, and strip it clean excepting a tuft of about an inch at the end, wet this slightly in spirits of turpentine, draw the neck of the chicken out straight, open its mouth wide, seize the tongue gently with a piece of muslin between the fingers to prevent its slipping, and then push the feather lightly down its windpipe two or three inches and twist it round, and this will bring up more or less worms, and the chicken will usually sneeze out the remainder; if it does not, repeat the operation not more than two or three times the same day, till the windpipe is clear of them.

The gapes are said to be prevented by mixing a small quantity of spirits of turpentine with the food of chickens; wetting up the meal for their food with soap suds, or molasses, or a little asafœtida pounded fine, or vinegar, in which iron has been standing, or snuff, or rhubarb and cayenne pepper, or feeding them with coarse hommony, and a pepper-corn now and then, or a piece of garlic.

Some think that the worm is the offspring of the lice on hens, which we think is impossible; others, that it is more generally picked up by the chicken out of dung heaps, either in the egg, or just after being hatched; others, that they are spawned in the windpipe by the parent worm and hatch out there; others, that the eggs are deposited on the nostrils of the chicken by a winged insect, and then hatch, and find their way into the windpipe.

Chickens are most affected with gapes in wet weather, when worms are most likely to breed; also when catarrhal complaints are most frequent. Keeping them up in a dry warm place during wet weather is a good protection. In addition to this, the hen house should be kept clean, warm, and dry, and be thoroughly whitewashed inside and out every spring and fall, with a wash made of lime pretty well sprinkled with salt.

We feel quite culpable in condensing so much from Mr. Bement's excellent little work; yet this should tempt our young readers now to purchase it, for they will find not only this subject but most others regarding poultry fully treated, together with handsome wood cut illustrations of the text. With this work in his library, and strict attention to its precepts, every boy would be able to raise fowls successfully and profitably.

* * *

Breaking Steers.—Now is a good time to commence breaking steers. For this purpose, bows and yokes of a suitable size must be prepared, which should be first put on them standing together in the stable after they have eaten their morning's fodder. When they have worn this an hour or so each day, for several days, they may be taken into the yard and be allowed to walk round a short time, and then unyoked. When well accustomed to their yoke, they should be placed between two other pair of cattle, and driven off a short distance without any load. Then they may be attached with the other team to a load, and depend upon it they will learn what is wanted of them, from seeing what other cattle do, faster and easier than in any other way. Never whip them or speak harshly. If they do not perform instantly all that is required, it is from ignorance generally, and not, as it is too often supposed, from obstinacy or viciousness. Then all you have got to do is, to teach them from the example of other well broke cattle. But when one has not other cattle to break them with, more attention will be necessary, and they will require guiding in their movements by a cord attached to their horns. The teamsters in New England excel in breaking and driving cattle, and they frequently have them so well taught, that they will perform single or together, in the yoke or out of it, by mere word of command, anything reasonable which can be required of them.

The finest breed of working cattle is the Devon and its crosses. These are of a deep, bright red color, with orange colored noses, an orange rim round the eye, and a beautiful clean upturned horn of a clear yellowish white. Our farmers in this vicinity frequently send to Connecticut for such oxen. They are active, hardy, fine made animals, and capable of drawing very large loads. We have seen a pair of four year old steers start off at a full gallop with a load of 6000 lbs. at the cattle shows in New England, and then turn round and back the load on level ground with ease. This, however, is a large load for such young animals, and great care should be used lest they strain themselves in their ambitious efforts to move it. These oxen will plow an acre of ground as quick as a pair of horses; indeed, they oftener beat than get beaten at the plowing matches. We greatly admire such animals, and always kept them on our farm for work instead of horses. We found them more serviceable in the generality of farm work, while their gearing and food did not cost near as much as those of horses; and then if any accident happened to them they could be killed for beef, as we always kept them in good order. If an accident happens to a horse he is a dead loss, save his hide and shoes.

We do wish, boys, you could persuade your fathers to be more careful in their selections of bulls and and cows to breed from. The beautiful pure Devons can be had at quite reasonable prices now. But you will use them at least, we hope, when you get to be grown men. Let the eye once get accustomed to the beauty and good points of this choice breed of cattle, and you would never forget them. How we wish your schoolmasters were able to instruct you in such things. We would engage to teach you more in a few hours' conversation, with some good live animals before us to illustrate it, than you could learn from books or by yourselves in half a life. Thus taught, you could not be imposed upon by those miserable cheating pedlars, with their grade animals, which they are continually palming off upon an ignorant public at low prices, for thorough breeds.

* * *

To Catch Rabbits.—We lately read in the London Gardener's Chronicle, a curious way of catching rabbits. Take a large crab or lobster, and stick a candle about an inch long on his back, light it, and then put him to the hole, over the mouth of which spread a net. He will not crawl far before the rabbit gets frightened, and runs out and is caught in the net. We think a good plan to catch woodchucks or ground hogs, would be to put a net over the mouth of their hole, then fasten a pitch pine knot, or some inflammable matter to the end of a pole and thrust it down the hole. We have often assisted, when a boy, in smoking woodchucks out of a hole, but it is a tedious process and often ineffectual.

* * *

Amount of Pork packed this season at the West.—The Cincinnati Chronicle estimates the number of swine packed this season in Ohio, Indiana, Illinois, Kentucky, and Tennessee, at 592,870, against 933,600 last year; showing a deficit of 340,730. The weight per head is supposed to be at least 12 to 15 per cent less than last season.

FOREIGN AGRICULTURAL NEWS.

By the Steam-packet Hibernia, we have our European journals to the 4th of February.

MARKETS.—*Ashes* had rather a downward tendency. *Cotton* remains without change. Stock on hand on the 1st of February, 772,300 bales, against 625.300 of same date last year. *Flour* is dull, and had declined. *Provisions.*—Beef and Pork in demand at full prices; Butter, Cheese and Lard, have given way a little owing to the large arrivals *Tallow* has fallen. *Tobacco.*—The consumption has increased in Great Britain 1,634,000 lbs. the past year. *Wool* was in brisk demand at full prices.

Money was plenty at 2½ per cent. interest.

American Stocks without change. The news of the payment of the Pennsylvania interest, as soon as known abroad, will have a favorable effect upon them.

The Consumption of Guano in England is enormous, it having reached 63,000 tons last year. The present year it is supposed it will amount to at least 150,000 tons. Prices were rising.

American Hops.—Under the new tariff these have found their way into England. They are said to be equal in flavor and quality to any ever grown in that country.

Great Butter Cows.—In Ireland five Kerry cows made last year 1,600 lbs. of butter, which is an average of 320 lbs. each.

Another Guano Island has been discovered in the neighborhood of Saldanha Bay, near the Cape of Good Hope, but the manure is of a poor quality.

Extraordinary Turnips.—Two turnips, grown on the farm of Mrs. Boothroyd, at Carcroft, were taken up the other day, and were found to measure, the first, 3 feet 11 inches round, and weighed 21½ lbs.; and the other 2 feet 10 inches, and the same weight as the other.

Pigs Nursed by a Cow.—A cow on the farm of W. Raven, Esq., at Gingley-on-the-Hill, may be seen two or three times a day laid on her side in the fold-yard, suckling a litter of pigs, nine in number, which have recently been taken from the sow. Several attempts have been made to drive her off, but she always returns, and has once or twice ran at the parties who have attempted to interfere with her in her maternal cares of the young litter.

Poultry Exported from Dublin to England during the Christmas week amounted to 500 tons, and was worth 50*l.* per ton.

"*Does Charcoal Absorb Ammonia?*"—Charcoal has the curious property of absorbing bad smells from all substances with which it may be brought into contact, when in a finely divided state. New made charcoal absorbs moisture with avidity. It also absorbs gases, and what is extraordinary, it has the power of condensing gases when so absorbed. This will be observable, in the following table by De Saussure, which gives the number of volumes of gas absorbed by one volume of box-wood charcoal, that is to say, one cubic inch of such charcoal will absorb the extraordinary quantity of 90 cubic inches of ammoniacal gas, and so on:—

Ammoniacal gas	90
Muriatic acid	85
Sulphurous acid	65
Sulphuretted hydrogen	55
Protoxide of azote (Nitrogen)	40
Carbonic acid	35
Olefiant	35
Carbonic oxide	9.42
Oxygen	9.25
Azotic (nitrogen)	7.5
Oxy-carburetted hydrogen	5
Hydrogen	1.75

As plants have the power of decomposing, or rather extracting from the charcoal, the gas which has been thus absorbed, it would seem to us that the mechanical use of charcoal, in stables and cow-houses, would be almost equal, in retaining the ammonia, to the chemical use of gypsum.

Sago Palmist.—Of all the palm-trees which are natives of Asia, the sago palmist is one of the most useful and interesting; a liquor runs from the incisions made in its trunk, which readily ferments, and is both salutary and agreeable for drinking. The marrow, or pith of the tree, after undergoing a slight preparation, is the substance known by the name of sago in Europe, and so eminently useful in the list of nutritious food for the sick. The trunk and large leaves of the sago palmist are highly useful in the construction of buildings; the first furnishes planks for the carpenter, and the second a covering for the roof. From the leaves are also made cord, matting, and other articles of domestic use.

Weight of Soil of an Acre.—The soil of an acre of land, at the usual depth to which it is ploughed, weighs on an average about 700 tons.

Alpaca Wool.—The London import of this article amounted to 5,165 bales in 1844, against 3,667 bales in 1843, which shows an increase last year of 1,498 bales, or 41½ per cent. on the import of 1843. The alpaca, or goat's wool, now enters so largely into the manufactures of this district, and the demand for the fabrics composed of it, in whole or in part, is now so large and increasing, and the growth of it so apparently inadequate to the demand, that we must look forward to at least the maintenance of the very high prices to which the article has risen; and it may well be feared that the deficient supplies of alpaca wool may place a limit on the production of the manufactured article more contracted than that which the demand for it would prescribe.

Fattening of Geese.—At the last meeting of the French Academy of Sciences, a communication of some interest to the lovers of fat geese was made by M. Persoz, who appears to have gone into the affair *con amore*, and to have been fully imbued with the importance assigned to it. A hundred modes of fattening geese have been conceived, but most of those who have been engaged in the speculation have been of opinion that it was necessary the food should contain the elements of fat to be eliminated by the goose in the process of digestion. M. Persoz is of a different opinion. He contends that it is of no consequence whether the food be of the kind alluded to or not, as the goose, he says, forms in the process of digestion fat from any food, if it contains a certain proportion of azote. We hope M. Persoz will also show that it is not necessary in the fattening of geese to expose them to the tortures practised by many feeders, such as nailing them by the feet and confining them in a narrow space to prevent motion. We have no objection to partake of a good fat goose, if the feeding be merely the result of abundance of wholesome food, but we confess that we never see a fat goose, and, above all, a large goose liver, without thinking of the inhumanity frequently resorted to in order to make the feeding of these poor animals a successful speculation.—*New Far. Journal.*

Steeping Seeds.—In March last, some Pink-seeds were steeped in a solution of sulphate of ammonia, another parcel in nitrate of soda, and a third in a mixture of lime, salt, and hen's-dung A quantity of Pink-seed was sown at the same time, in the usual way. The seeds in sulphate of ammonia grew very quickly, and are now the largest plants of this year's sowing. Those in nitrate did no good, three only surviving; and those in the mixture failed altogether.

Longevity of a Horse.—A horse, the property of Mr. John Lambert, Thornton-in-Lonsdale, died last week in the forty-second year of its age. It worked as usual until a day or two previous to its death.

To Destroy Sorrel in Grass Lands.—Sorrel abounds in the proportion of the free humic acid in the soil, and it can be eradicated by the use of calcareous manure, such as soapmakers' waste, carbonate of lime.

To Neutralize the Humates in Water.—Put a small piece of lime, or, better still, a little lime water into it, and the water will become clear and palatable.

Farming by the Insane.—The inmates of one of the insane hospitals in France, have been gradually brought on to a farm in the neighborhood to perform its daily work. This has not only been attended with considerable profit to the establishment, but it has also had a very happy effect on the health and temperament of those employed. The system of thus employing the insane is now spreading rapidly in France.

Whole Potatoes best for Planting.—These generally insure a tolerable crop in all seasons, and are said to prevent the dry rot in hot weather, and rottenness in wet weather which cut pieces are so liable to.

To Grow Fine Early Strawberries.—As it is of great importance, in growing strawberries in the open air, to make them produce fine fruit as early as possible, without loss by frogs or slugs, &c., which loss is generally very great, the following plan may be found useful: Fix on each side of the row of strawberries, just before they come into blossom, feather-edged boards at an angle of fifty or sixty degrees. This may be effected by nailing two narrow strips of wood to each board, and pushing them into the ground. The boards should be painted black. This plan makes two or three weeks' difference in the ripening of the fruit; but glass, or an oiled paper frame, being placed on the top, makes a greater difference still, and prevents any of the fruit from being trod upon, or eaten by vermin. This plan, at first sight, may appear to be an expensive one, but it is not so; any old boards will answer the purpose. I have bought old feather-edged boards at ½*d.* per foot; and, as they are only used in summer, they last for many years. The expense is saved in the first year; for the wood, although painted on each side with a coat of invisible green, costs only about 1½*d.* the foot; while the increase of fruit in quantity, as well as in quality, quite compensates for the outlay. In conclusion I may observe, that watering with strong liquid manure two or three times in the month of February, and frequent waterings during bearing time with pond-water, are, I have found, very beneficial.—*Gardeners' Chronicle.*

Dry Rot in Timber.—I have had a great deal to do with this, and I have tried many remedies, but have found none to answer except the following, which I tried about four years ago. I took 3 lbs. of corrosive sublimate, and put it into a large glazed earthen pot; to this I put about four gallons of water, and when it was well dissolved I took a large painter's brush, and washed the timber and walls with the water, and no symptoms of rot have made their appearance since.—*Ibid.*

Productive Variety of Apple.—The Rymer Apple, Caldwell, or Cordwall, as it appears to be called near Nottingham, proves a most productive and valuable sort. The following note accompanied a specimen of the fruit: The tree will cover 100 yards; and 240 pecks have been gathered from one tree and sold for 14*l.* 15*s.* 8½*d.*—*Ibid.*

Salt and Lime.—A correspondent of the Farmers' Magazine recommends a mixture in a dry state of five quarters of lime and two and a half of salt for every acre, and allow the mass to remain undisturbed for three months before using. A double decomposition is thereby effected, and two new and valuable salts formed—carbonate of lime and muriate of soda. On a farm of heavy soil, subsoil yellow clay, this mixture is used as a top dressing for wheat, oats, and barley, applied in March or April. The grain is thereby increased in quantity, and both grain and straw in quality. Light grain is thus entirely prevented. These salts not being volatile are always applied as a top dressing.

The Himalayan Cedar.—Its botanical range extends from seven thousand to twelve thousand feet above the level of the sea; and in its most congenial locality it attains a great height, and a circumference of above thirty feet. When young it closely resembles the real cedar, but never sends forth spreading branches. So durable is its timber, that some used in building one of the wooden bridges over the Jailum, was found little decayed after exposure to the weather for above four hundred years.

The Discovery of the true Food of Plants, with a Sketch of the Physiology of Agriculture.—Prof. Schultz of Berlin, has just published his views on these subjects, which are very different from those heretofore generally received. He says, 1. The hitherto received theory, that carbonic acid is the principal food of plants, is erroneous, and altogether without foundation in nature. Carbonic acid is absorbed by the roots merely incidentally, together with their food, and is decomposed at the same time with it, but with great difficulty, by means of the leaves; whilst the large quantity of oxygen which plants exhale has a very different origin. 2. There is no proof of the truth of the assumption connected with the carbonic acid theory, that water is decomposed and assimilated by plants. 3. The view hitherto adopted with the carbonic acid theory, that plants feed on unaltered humic acid and salts of humic acid, is also wrong, inasmuch as plants never absorb unaltered humic acid, humus extract, and salts of humic acid. 4. The true food of plants is rather the azotised humus in the vicinity of the roots, which is converted into other substances by their digesting action.

Inversion of the Uterus.—Before we begin to return it to its natural situation we must have plenty of assistance at hand, and, if possible, get the cow to stand up if she is down. One of the assistants should lay hold of her by the horn and nose, another should press down her back, or goad her to keep her, if possible, quiet. If it is a mare put the twitch, or side line, or hobbles on. We should then lift the uterus on a clean cloth, which should be supported by a person on each side; then separate the placenta from the cotyledons [part of the inside of womb], in doing which we should be careful of not tearing any of them off, though I have seen some of them accidentally removed without any ill effect. If it is dirty, wash and clean it with warm milk and water, or any mucilaginous decoction of herbs. We should then place our clenched fist against the fundus, or extreme end of the uterus and force it again into its proper place. In doing so, we should, with our other hand and other assistants, gradually and steadily force the side of the uterus in, and which will, in a great measure, take off a deal off the pressure caused by the fist, and which might otherwise rupture the uterus. It will generally be found that when about half of it is returned it will begin to slip in very easily. We must be careful to pass our arm sufficiently far up in the body until the whole of the uterus has become re-inverted. Some persons are in the habit of placing a clean napkin over the fist and arm, which, perhaps, may assist in drawing in the sides of the uterus, by becoming in a measure attached to it. It may also prevent inoculation of the arm, which I have in several instances experienced to a painful degree.—*Veterinarian.*

Gooseberry Caterpillar.—To prevent the attack of this pestiferous insect, when the plants are beginning to open their leaf-buds, dust the whole of them over with dry soot. This simple method has never been known to fail.

Editor's Table.

Genesee Farmer.—We notice that this excellent work has changed its quarto form to the octavo. It now contains 16 pages, and is issued monthly—price 50 cents a year. Published by B. F. Smith & Co., at Rochester, N. Y. Dr. Lee has become its editor—an able man, and we are certain he will make a highly useful periodical of it. We wish it a large circulation.

Boston Cultivator.—Is a weekly folio of eight pages; published at Boston, Mass, by Otis Brewer—price $2 a year. It is a family Newspaper, as well as an agricultural work; and we are informed that it has a circulation of 11,000, which is *larger* than that of any agricultural paper we know. We do not understand how our neighbors of the north have got so far ahead of our old New Yorkers. It is edited by Messrs. Brewer, Cole & Pedder. It commences the present year in a very handsome new dress. May it still further increase its subscription list.

The Albion.—We notice that J. S. Skinner, Esq., of Washington, has commenced an Agricultural Department in this sterling journal. Mr. Skinner was the originator, and for a long time the editor of the American Farmer, and we are confident he will fill the columns given to him with useful and instructive agricultural matter. The Albion is the only paper in this city which is mainly devoted to British and Colonial news, Parliamentary debates, literature, science, art, &c., &c. It is an admirable paper for the wanderer from the fast-anchored isle, who may still have a lingering love of the place of his birth, or who feels any interest in the affairs of its vast and multifarious empire. The Albion is a weekly folio of twelve pages. Published at 3 Barclay street. Price $6 a-year.

The American Review; A Whig Journal of Politics, Literature, Art, and Science. Edited by G. H. Colton, 118 Nassau street, and published by Wiley & Putnam, 161 Broadway, N. Y., pp. 112. Price $5 a year. This work is started, like the Democratic Review, to uphold and support the principles of its party, and general literature. It is ably conducted, and well worthy the patronage of the public. No. 1, for January, contains superb portraits of Henry Clay and Theodore Frelinghuysen.

Guano, its Origin, Properties, and Uses; showing its importance to the Farmers of the United States as a cheap and valuable manure; with directions for using it. This is a neat pamphlet of 80 pages, from the press of Wiley & Putnam, 161 Broadway, by Edwin Bartlett, of 42 South street, N. Y., who keeps the pure Peruvian for sale—see advertisement. It is the best manual on Guano we know for the American farmer, as it contains many experiments of its use in our own country, and the method of applying it in Peru on Indian corn. We will send the pamphlet *gratis* to any one desiring it. Mr. Bartlett will also do the same

American Quarterly Journal of Agriculture and Science.—Conducted by Dr. E. Emmons and Dr. A. J. Prime, 8vo., pp. 184; price $3 a-year. This long looked for journal has at length appeared, abounding with well considered and able articles, of rather a scientific than practical cast. About one half of the present number is made up of original contributions, the other part is selections from foreign and domestic agricultural periodicals. The American Quarterly has our best wishes for its success, and we shall be happy to aid in its circulation by taking subscriptions for it at this office. It is handsomely got up, and highly deserving public patronage. Its editors and contributors are all able and well informed men.

Maine Farmer.—This large and handsome weekly folio, published at Augusta, Me., at $2 a year, and edited by the facetious Dr. Holmes, keeps steadily on its way rejoicing. It is a good family paper, and deserving of as many subscribers as were ever grown Quoddy-blue potatoes upon an acre of the richest Maine land, cultivated in the best possible style by the indefatigable neighbors of the blue-noses.

Final Report on the Geology and Mineralogy of New Hampshire; with contributions towards the improvement of Agriculture and Metallurgy. By Charles T. Jackson, M.D. Concord, N. H. Published by order of the Legislature, pp. 376, quarto: 1844. Price stitched $3 50. We have been highly gratified in perusing the above Report, and think New Hampshire was judicious as well as fortunate in employing a person well skilled in his profession, to perform so important an undertaking. Dr. Jackson has long been favorably known in this country, as well as abroad, as an able analytical chemist, and as having made geological surveys of several of the New England States, and particular examinations of the chief mineral regions of North America. Although New Hampshire embraces but a small extent of territory, the survey occupied more than five years, during which time, he examined all the important localities in the State; made several hundred barometrical and thermometrical observations for the purpose of determining the height of mountains and other elevations; performed partial or complete analysis of all the principal soils, minerals, and ores which came under his jurisdiction, as well as of several vegetable products, including the principal varieties of the cerealia and Indian Corn. In the mean time, he discovered a rich mine of tin ore, the only one known in the United States, as well as somewhat extensive mines of copper, iron, lead blended with silver, and several rich quarries of lime marl, peat, soap-stone, slate, granite, mica, feldspar, black-lead, brick and potter's clay, ochre, manganese, sulphate of iron, &c., &c. He has also entered fully into the economical geology and metallurgy of the State, suggesting various plans for working the mines, smelting their ores, and illustrating the same by numerous diagrams. He has collected a great amount of statistical information relative to the extent, modes of culture, and rotation of crops, and has pointed out means for improving the soil and rendering it more productive. In short, it is a complete Hand Book for the northern farmer and miner, and it is to be regretted that the circulation of so valuable a work should be so limited. By permission, however, from the author, we shall make copious extracts in our future numbers, which we hope will be no less acceptable to our readers than useful to the community at large.

The Pomological Manual, or Treatise on Fruits: Containing descriptions of a great number of the most valuable varieties for the Orchard and Garden. By William Robert Prince, aided by William Prince, proprietor of the Linnæan Botanic Garden and Nurseries, Flushing, Long Island. In 2 Parts, pp. 418.

A Treatise on the Vine: Embracing its History from the earliest ages to the present day, with descriptions of above 200 Foreign, and 80 American varieties; together with a complete Dissertation on the Establishment, Culture, and Management of Vineyards. By the same authors as above; pp. 355.

Although some new discoveries in fruits have been made since these volumes were published, and a different treatment is pursued in the culture of some things, still, the above works are highly valuable, and should be in the hands of all who wish to be fully informed on subjects of which they treat. The crops of fruit in the United States are becoming of greater value every year; it is consequently more and more important that we give an increased attention to an enlightened and profitable culture of them.

Prairie Farmer.—Published and edited by Messrs. Wright & Wight, Chicago, at $1 a year. This is one of the very best Agricultural Journals for the West that we know. It is edited with spirit and ability, and its typographical appearance would be creditable to any one of our eastern periodicals. We will gladly take subscriptions for it at this office, and guarantee its being promptly sent when ordered.

Republications of the Edinburgh, London, Westminster, and Foreign Quarterly Reviews, and Blackwood's Magazine, by Leonard Scott & Co., 112 Fulton street, N. Y. Price for any one Review, $3; any two, $5; any three, $8; Blackwood, monthly, $3; for the five works, $10. The established character of these able periodicals, renders it unnecessary for us to say a single word in their favor, other than that they abound more with articles on Agriculture and the Domestic Animals, than formerly. "Progress of Scientific Agriculture," in the Edinburgh Review for January, is an admirable article; and one of the most pleasing and instructive essays we ever read on the Bee, recently appeared in the London Quarterly. For further particulars regarding these periodicals, see advertisement.

Report to the Navy Department of the United States on American Coals, applicable to Steam Navigation and to other purposes. By Walter R. Johnson. This is a most valuable public document, sent us by the Hon. J. S. Skinner, of the Post Office Department, at Washington.

Prince's Descriptive Catalogue of Fruits and Ornamental Trees, Shrubbery, Vines, and Plants, cultivated and for sale at the Linnæan Botanic Garden and Nurseries, at Flushing, Long Island, near New York. This is a very complete Catalogue of 110 pages. containing nearly everything in its line that one could desire to cultivate.

Seeds for Distribution.—The Hon. H. L. Ellsworth, Commissioner of the Patent Office at Washington, has sent us about thirty different kinds of seeds of superior vegetables, grains, &c., which our friends can have by calling at our office, and selecting such as they are desirous of experimenting with. Mr. Ellsworth annually makes the most praiseworthy efforts this way in behalf of agriculture.

We Want to Purchase—*Jerusalem Artichokes* (helianthus tuberosus), enough of these to plant half an acre.—*A Canadian Stallion*, of handsome form, sound and young. A pacer would be preferred to a trotter. The price must be moderate.—*Jersey Sweet Corn.*—Three or four barrels in the ear, of the best kind, for soiling.—*A Young Horse*, easy under the saddle, and broke to harness. One not over 6 years old, about 15 hands high, switch tail, and of a bright bay or some dark color. His price must not be over $150, and it is useless calling our attention to an animal that is not perfectly sound and of good action, figure and substance, for the money.

Acknowledgments.—To Dr. D. P. Gardner, for his Address before the National Convention of Farmers held at the Repository of the American Institute, in the city of New York, October, 1844; John W. Lincoln, Esq., for the Transactions of the Worcester County Agricultural Society for the year 1844; T. B. Wakeman, Esq., for Proceedings of the National Convention of Farmers and Gardeners, and Friends of Agriculture, held at the American Institute, October, 1844; J. S. Skinner, Esq., for Mr. Ruffin's Agricultural Survey of South Carolina, which we noticed at length in our last volume; Henry Watson, Esq., for Transactions for 1813 and '4 of the Hartford County Agricultural Society of Connecticut; some unknown friend, for the Second Annual Report of the Transactions of the Monroe County Agricultural Society, with the Address of Dr. Daniel Lee.

REVIEW OF THE MARKET.

PRICES CURRENT IN NEW YORK, FEBRUARY 24, 1845.

ASHES, Pots,	per 100 lbs.	$3 75	to	$4 00
Pearls,	do.	4 19	"	4 25
BALE ROPE,	lb.	6	"	9
BARK, Quercitron,	ton,	23 50	"	25 00
BEANS, White,	bush.	1 25	"	1 50
BEESWAX, Am. Yellow,	lb.	28	"	31
BOLT ROPE,	do.	12	"	13
BONES, ground,	bush.	35	"	40
BRISTLES, American,	lb.	25	"	65
BUTTER, Table,	do.	15	"	18
Shipping,	do.	8	"	12
CANDLES, Mould, Tallow,	do.	9	"	12
Sperm,	do.	27	"	38
Stearine,	do.	20	"	25
CHEESE,	do.	4	"	8
COAL, Anthracite,	2000 lbs.	5 00	"	6 00
CORDAGE, American,	lb.	11	"	12
COTTON,	do.	4½	"	9½
COTTON BAGGING, Amer. hemp,	yard,	14	"	15
American Flax,	do.	16	"	17
FEATHERS,	lb.	27	"	31
FLAX, American,	do.	7	"	8
FLOUR, Northern and Western,	bbl.	4 50	"	4 94
Fancy,	do.	5 00	"	5 50
Southern,	do.	4 50	"	4 94
Richmond City Mills,	do.	5 50	"	5 75
Rye,	do.	3 50	"	3 75
GRAIN—Wheat, Western,	bush.	95	"	1 00
Southern,	do.	95	"	1 00
Rye,	do.	65	"	68
Corn, Northern,	do.	48	"	50
Southern,	do.	44	"	46
Barley,	do.	60	"	62
Oats, Northern,	do.	34	"	36
Southern,	do.	28	"	31
GUANO,	cwt	2 00	"	2 50
HAY,	100 lbs.	50	"	60
HIDES, Dry Southern,	lb	9	"	11
HEMP, Russia, clean,	ton,	185 00	"	190 00
American, water-rotted,	do	105 00	"	180 00
American, dew-rotted,	do.	75 00	"	125 00
HOPS,	lb.	13	"	15
HORNS,	100.	2 00	"	8 00
LEAD,	lb.	3½	"	4
Sheet and bar,	do.	4	"	4½
MEAL, Corn,	bbl.	2 44	"	2 75
Corn,	hhd.	11 75	"	12 00
MOLASSES, New Orleans,	gal.	23	"	25
MUSTARD, American,	lb.	16	"	31
NAVAL STORES—Tar,	bbl.	1 50	"	1 56
Pitch,	do.	1 00	"	1 12
Rosin,	do.	55	"	65
Turpentine,	do.	2 50	"	3 00
Spirits Turpentine, Southern,	gal.	35	"	37
OIL, Linseed, American,	do.	68	"	70
Castor,	do.	70	"	75
Lard,	do.	55	"	65
OIL CAKE,	100 lbs.	1 00	"	—
PEAS, Field,	bush.	1 25	"	1 50
PLASTER OF PARIS,	ton,	2 50	"	2 62
Ground, in bbls.	of 350 lbs.	1 12	"	1 25
PROVISIONS—Beef, Mess,	bbl.	6 00	"	8 00
Prime,	do.	4 50	"	5 50
Smoked,	lb.	5	"	7
Rounds, in pickle,	do.	3	"	5
Pork, Mess,	bbl.	8 25	"	10 25
Prime,	do.	6 50	"	8 12
Lard,	lb.	6½	"	7½
Bacon sides, Smoked,	do.	3½	"	4½
In pickle,	do.	3	"	4
Hams, Smoked,	do.	5	"	10
Pickled,	do.	4	"	7
Shoulders, Smoked,	do.	4	"	6
Pickled,	do.	3	"	3
RICE,	100 lbs.	3 00	"	3 50
SALT,	sack,	1 35	"	1 45
Common,	bush.	23	"	
SEEDS—Clover,	lb.	6½	"	7
Timothy,	7 bush.	10 00	"	12 00
Flax, rough,	do.	10 00	"	11 50
clean,	do.	12 00	"	12 25
SODA, Ash, cont'g 80 per cent. soda,	lb.	3	"	3½
Sulphate Soda, ground,	do.	1	"	—
SUGAR, New Orleans,	do.	3½	"	6
SUMAC, American,	ton,	25 00	"	27 50
TALLOW,	lb.	6½	"	7
TOBACCO	do.	2½	"	6
WHISKEY, American,	gal.	22	"	24
WOOL, Saxony,	lb.	45	"	60
Merino,	do.	35	"	45
Half-blood,	do.	30	"	35
Common,	do.	25	"	30

NEW YORK CATTLE MARKET—Feb. 24.

At Market 900 Beef Cattle (500 from the South), 125 Cows and Calves, and 1000 Sheep.

PRICES—Beef Cattle are dull of sale at our last week's figures, which we continue—left 100.

Cows—Sales at $12 *a* 28, with extra at $35—left over, 15.

SHEEP—We quote $1,50 to $2,50, and $5 for extra.

HAY—A large supply at 60 *a* 75c. per cwt.

REMARKS.—*Ashes* continue firm notwithstanding the late rather unfavorable news by the Hibernia. *Cotton* remains unchanged in price. Exports since 1st September, 755,709 bales; same time last year, 392,058; same time year before, 892,136. *Flour* has a downward tendency. *Grain* in demand. *Hay* dull. *Molasses* and *Sugar* active. *Provisions* in fair request. *Tallow* very dull. *Tobacco* little doing. *Wool* is more inquired for.

Money is more abundant, and good paper can be done from 5 to 6 per cent. We understand our banks have about $6,000,000 of specie in their vaults. Exports nearly ceased.

Stocks, without much change.

Real Estate continues to be offered in large parcels, and obtains good prices.

The Weather was pretty cold the fore part of February, with an extraordinary fall of snow on the 4th, of full twenty inches deep. On the 14th it began to thaw, followed the next day with rain and heavy thunder and lightning; since which, the weather has gradually become warm and pleasant. We rarely have it more so in March.

TO CORRESPONDENTS.—*A Novice.* We gave full directions for the management of the Kitchen Garden in our first volume, p. 56, and continued p. 88, and under this head, in Northern Calendars in last volume. It would not be considered fair by a majority of our readers to repeat these matters. The Kitchen Gardener's Instructor, by Bridgeman, can be had for fifty cents; a work on the same subject, published last year by Lea and Blanchard, for 25 cents; and Cobbett's American Gardener for 75 cents. The early dwarf potato ripens soonest, but is a shy bearer. The kidney and mercer are good bearers, and are more generally cultivated for an early market in this vicinity.

G. L. COCKRILL, E. S., W. W. V., THOMAS AFFLECK, JOHN P. NORTON, MRS. KIRKLAND, JOHN LEWIS,
Are received, and shall appear in our next. We must apologise to several of our valued Correspondents for not yet inserting their Communications sometime on hand. We hope to clear off the old score next month.

FASTOLFF RASPBERRY, LANCASHIRE GOOSEBERRIES, &c.

At Prince's Linnæan Bot. Garden and Nurseries.

Four Hundred genuine Fastolff Raspberry, imported from Mr. Youel, who brought it to notice; 600 Franconia, large and fine; 4,000 Lancashire Gooseberries, comprising 150 of the largest and finest kinds, recommended by the London Horticultural Society; 60 Victoria Red Currant and all other choice kinds. Strawberries of every celebrated variety, whose merits were proved the past season. Of Roses, a most perfect collection, comprising about 1,000 varieties fully described in the Catalogue. The above, and all Ornamental Trees are priced at the lowest rates in the New Descriptive Catalogues, which will be sent to every post paid applicant.

WM. R. PRINCE & CO.

Flushing, Feb. 1st, 1845.

LINNÆAN BOTANIC GARDEN & NURSERY

Late Prince's, Flushing, L. I., near N. Y.

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FRUIT AND ORNAMENTAL TREES,

SHRUBS, VINES, PLANTS, &c., than can be found in any other NURSERY in the United States, and the *genuineness* of which may be depended upon; and they will unremittingly endeavor to merit the *Confidence* and *Patronage* of the Public, by *Integrity* and *Liberality* in dealing, and *Moderation* in charges.

Descriptive Catalogues, with Directions for Planting and Culture, furnished gratis on application to the New Proprietors, by mail, post paid, and Orders promptly executed.

WINTER & CO., Proprietors.

Flushing, Feb. 1, 1845.

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The genuine East Windsor *broad* and *narrow* Seed Leaf Tobacco Seed, saved the past season from selected plants.

For sale by E. W. BULL,
Seedsman to the Hartford Co. Ag. So.

Hartford, Ct., Feb. 20, 1845. 1t*

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One Hundred agents are wanted immediately, to promote the general introduction of this valuable invention, for the manufacture of Manure in New York, New Jersey, Virginia, Delaware, and in the six New England States. Unquestionable testimonials and responsible securities will be required for the faithful discharge of the duties of the appointment. Persons of suitable qualifications will find this both a useful and lucrative employment. Applications, if by mail, must be post paid, and directed to me at Westville, New Haven County, Connecticut.

Hundreds of testimonials from the best authorities, evince that no farmer who is sensible of the want of Manure, should remain destitute of this cheap and expeditious mode of its procurement. Any person forwarding Five Dollars to the General Agent, with information of the writer's name, residence, and address, shall be furnished with a copy of the method, with the right to use the same, without charge of postage.

ELI BARNETT, General Agent.

Westville, Conn., March 1, 1845.

HOVEY'S SEEDLING STRAWBERRY.

Of which the largest berries are from five to six inches in circumference, and their quality not surpassed. See Magazine of Horticulture, and Agricultural papers generally.

For sale by Philetus Phillips, Middletown Point, N. J., Agents: John Moore, Fulton street, New York; Henry A. Dreer, 97 Chestnut street, Philadelphia; Payne and Gregory, Lynchburgh, Va.; T. M. Hunt, Auburn, N. Y.; T. O. Loomis, Windsor, Conn.; Thomas T. Bicyler, Bordentown, N. J.; D. C. Goodale, Chimney Point, Vt.; J. B. Ackerman, Goshen, N. Y.; Jesse O. Dissosway, Richmond, N. Y.; H. J. Sickels, Albion, N. Y.; Josephus Shann, Rhaway, N. J.; B. P. Winant, Rossville, N. Y.; Jacob W. Dillon, Kingston, N. Y.; Wightman and Turner, New-London, Conn.; Charles Raymond, New Canaan, Conn.; M. A Santon, Norfolk, Va.

The plants ordered by agents will be forwarded with the utmost punctuality at such times as to reach their destination on the 1st, 15th, and 30th of April. Purchasers, therefore, by giving the agents their orders seasonably, with reference to the above dates, can be ready to receive their plants immediately on their arrival, while fresh and in good order.

A sheet containing particular directions for the cultivation of this and other varieties of the Strawberry (chiefly extracts from the Magazine of Horticulture, published at Boston), is furnished gratuitously with the plants sold. Price of Plants, $1.50 per Hundred.

February, 1845.

PERUVIAN GUANO.

The undersigned has received by the George and Henry, direct from the Chincha Islands, on the coast of Peru, a cargo of this valuable manure. It was shipped by and for account of the Peruvian Guano Company, and is warranted pure, and of the best quality. Price

In bags of about 150 lbs., each 3 cts. per lb.
In lots not less than five tons, 2¾ cts. "
" " " ten tons, 2½ cts. "
" " over ten tons, 2 cts. "

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The subscriber has for sale a few barrels of the above superior oats,—price $3 50 per barrel, delivered on board vessel. If two or more barrels are taken, a deduction will be made of ten per cent. The imperial oats are considered the best kind now cultivated, having less husk about them than any other known. Their weight is from 40 to 44 lbs. per bushel.

A. B. ALLEN, 205 Broadway, N. Y.

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These may be had at the following places, viz.:

H. M. Grosvenor, Natchez, Miss.; Halsall & Collet, St. Louis; S. F. Gale & Co., Chicago, Ill.; J. B. Steele, D. Baker & Co., New Orleans; J. J. Richards, Athens, Geo.; Saxton & Kelt, Boston, Mass.

GENERAL AGENCY FOR THE AMERICAN AGRICULTURIST.

Mr. Alonzo Sherman, of Trumbull, Fairfield County, Connecticut, is hereby appointed General Agent of the American Agriculturist, with authority to appoint Sub-Agents in any part of the United States; and we hereby recommend him to the attention of our friends wherever he may go, and hope they will extend such aid and assistance to him, as will forward the object in which he is engaged.

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Liebig's Agricultural and Animal Chemistry. Price 25 cents each.

Liebig's Familiar Letters on Chemistry. Price 12½ cts.

London's Encyclopædia of Agriculture, (English). Price $10.

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The Honey Bee, its Natural History, &c., with 35 engravings. Price 31 cts.

Bees, Pigeons, Rabbits, and the Canary Bird, familiarly described. Price 50 cts.

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American Husbandry. Price $1.

The Farmer's Instructor; consisting of Essays, Practical Directions, and Hints for the Management of the Farm and the Garden. By J. Buel, 2 vols. Price $1.

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Parsons & Co. now offer to the attention of Horticulturists, the following list of Evergreens, embracing a number of varieties intrinsically valuable, and heretofore, exceedingly rare in this country:

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" torulosa	1
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" suecica	1

Their stock of the different varieties of Evergreens more usually planted is large, to which, as well as to their assortment of Deciduous, Ornamental, and Fruit Trees, they would invite attention.

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AMERICAN AGRICULTURIST.

Agriculture is the moſt healthful, the moſt useful, and the moſt noble employment of man.—WASHINGTON.

VOL. IV. NEW YORK, APRIL, 1845. NO. IV.

A. B ALLEN, Editor. SAXTON & MILES, Publishers, 205 Broadway.

MAKING POTASH.

WE have been asked what kinds of wood will produce the most potash. The following table exhibits the average product in potassa in several plants, according to the researches of Vauquelin, Pertuis, Kirwan, and De Saussure:

In 1000 parts	Potassa
Pine or fir - - - -	0·45
Poplar - - - -	0·74
Beechwood - - - -	1·45
Oak - - - - -	1·53
Boxwood - - -	2·28
Willow - - - -	2·85
Elm and maple - - -	3·90

We are of opinion that this table is a pretty fair criterion of the amount of potassa to be found in American trees. It is well known among those practically engaged in the manufacture, that the sugar maple is among the most valuable we have for making potash, and this tree, till transplanted from America, was unknown in Europe. We have no doubt there are several others highly valuable, and we hope what we have now said on this head will induce some one to give us full particulars on the whole subject. But it is not of much importance to the manufacturer of potash to know what kind of wood will make the most, unless he is a purchaser of ashes solely for this purpose. Those who make potash, usually do it from the ashes of the forest cut down to clear up the land for cultivation; the potash, therefore, is only a secondary consideration with them. They will see from the above table, that the ashes of elm and maple are the most valuable to make potash, and pine the least so. We wish some capable person could be induced to experiment on the ashes of American trees. It would be a matter of considerable importance to the country to do so. Of the manner of making potash, a friend thus writes us:

Forty years ago I was engaged in this business. My ashery building was forty feet square, with a deep underground story without a floor, ten or twelve feet from the ground to the timbers overhead, with an attic story to receive the ashes. My vats were both square and round (the shape being immaterial), with sliding doors in the floor of the attic, through which the ashes passed into the vats: the water was brought in pipes, and conducted into them as needed. The ley was conducted by small troughs from the vats into the boilers, which were large potash kettles, and set three in a furnace, one behind the other. The back kettle always boils first, and evaporates faster than the one next the mouth of the furnace. This boiling was continued until all the watery particles were evaporated, and a thick, dark substance formed, called salts. A very hot fire was still kept up, until the whole mass was melted; when it was dipped out with an iron ladle with a long handle, into iron kettles, to cool. Here it becomes a solid mass like a rock, and is then broken in pieces and put into strong air-tight casks for shipment. Lime ought always to be used in extracting the ley. This may be done by laying it over the straw at the bottom of the leach; or by laying it upon the top of the ashes after the leach is filled, and filtering the water through it; or it may be mixed in very small quantities with the ashes as they are put into the leach. I have used it in all these ways, and have found it to answer equally well in each. When the ley becomes so weak that it will not bear up an egg or potato, it ought then to pass through a fresh leach of ashes, until there be little or no strength to it, thus saving all that is valuable.

All cannot have a side hill on which to erect an ashery; some must, consequently, build on level ground; but it is not as convenient.

The ashes ought all to be drawn away and spread upon land, as they are emptied from the leach. I have seen hills of leached ashes lying about an old ashery, when the land contiguous would have been doubled in value by having them spread upon it. Being about to embark in making potash again, I shall anxiously wait before doing so, to hear from some manufacturer, through your columns, on this subject, before I commence. I am desirous of availing myself of any improvements on this old method.

VALUE OF SUGAR.

SINCE it is decided that Texas shall become a part of the United States, sugar will henceforth be one of our most important products. Its value as food to man, beast, and even birds and fish, is little known and understood by the people at large. It is generally contended by writers on food and diet, that sugar cannot support life, but facts contradict this assertion in several instances. Martin, in his History of the British Colonies, thus speaks of it:

"A small quantity of sugar will sustain life, and enable the animal frame to undergo corporeal and (as I can add from personal experience) mental fatigue better than any other substance. Often have I travelled with the Arab over the burning desert, or with the wild Afric through his romantic country, and, when wearied with fatigue and a noontide sun, we have set ourselves down beneath an umbrageous canopy, and have shared with my companion his travelling provender—a few small balls of sugar mixed with spices, and hardened into a paste with flour. Invariably have I found two or three of these balls and a draught of water the best possible restorative, and even a stimulus to renewed exertion. During crop-time in the West-Indies, the negroes, although then hard worked, become fat, healthy, and cheerful. In Cochin-China, the body-guard of the king are allowed a sum of money daily with which they must buy sugar-canes, and eat a certain quantity thereof, in order to preserve their good looks and *embonpoint*; there are about 500 of these household troops, and their handsome appearance does honor to their food and to their royal master. Indeed, in Cochin-China, rice and sugar is the ordinary breakfast of people of all ages and stations; and they not only preserve all their fruits in sugar, but even the greater part of their leguminous vegetables, gourds, cucumbers, radishes, artichokes, the grain of the lotus, and the thick fleshy leaves of the aloes. I have eaten in India, after a six months' voyage, mutton killed in Leadenhall market, preserved in a cask of sugar, and as fresh as the day it was placed in the shambles. In the curing of meat, a portion of sugar is often mixed with the salt and saltpetre. The Kandyans of Ceylon preserve their venison in earthen pots of honey, and after being thus kept for two or three years its flavor would delight Epicurus himself. In tropical climates, the fresh juice of the cane is the most efficient remedy for various diseases, while its healing virtues are felt when applied to ulcers and sores. Sir John Pringle says the plague was never known to visit any country where sugar composes a material part of the diet of the inhabitants. Drs. Rush, Cullen, and other eminent physicians, are of the opinion that the frequency of malignant fevers of all kinds is lessened by the use of sugar; in disorders of the breast it forms an excellent demulcent, as also in weakness and acrid defluxions in other parts of the body. Dr. Franklin found great relief from the sickening pain of the stone by drinking half-a-pint of syrup of coarse brown sugar before bedtime, which he declared gave as much, if not more relief, than a dose of opium. That dreadful malady, once so prevalent on ship-board—scurvy—has been completely and instantaneously stopped, by putting the afflicted on a sugar diet. The diseases arising from worms, to which children are so subject, are prevented by the use of sugar, the love of which seems implanted by nature in them. As to the unfounded assertion of its injuring the teeth, let those who believe it visit the sugar plantations and look at the negroes and their children, whose teeth are daily employed in the mastication of sugar, and they will be convinced of the absurdity of the statement."

To this the Scotch Journal of Agriculture adds the following summary:

"Dr. Willis imputed a corrosive quality to sugar; but, in disproof of this notion, Dr. Slare has related, in the *Philosophical Transactions*, No. 337, that his grandfather had, all his lifetime, been in the habit of eating at his breakfast, a great quantity of sugar spread upon his bread and butter, and that he used also to put sugar into his ale and beer, and even into the sauce he ate with his meat. When eighty years of age, he had all his teeth strong and firm, able to crunch the hardest crust, and free from all pain or soreness in his gums. In his eighty-second year, one of his teeth dropped out, and soon after he lost another, which was one of the front teeth: in fact, all his teeth dropped out in two or three years; but, what is most remarkable, they were replaced by the growth of a perfectly new set. His hair was at that time of a very white color, but it now became much darker. He enjoyed good health and strength, and died in the ninety-ninth year of his age.

"The French people are great eaters of sugar, always carrying some of it about with them, in their pockets and reticules, and generally putting five or six large lumps into each cup of coffee.

"M. Chossat reports that sugar, when used as the *exclusive* or *principal* article of diet, produces quite opposite effects in some persons, according to the differences in their systems; for, while it fattens some, it creates bile which produces a diarrhœa and a wasting of the solids in other persons. The celebrated Bolivar had, by fatigue and privations, so injured the tone of his stomach, that he was unable at times to take any other food than sugar, which, in his case, was easy of digestion. His personal friends assure us that, in some of his last campaigns, he lived for weeks together upon sugar alone as a solid, with pure water as a liquid; but, probably, in nine hundred and ninety-nine cases out of a thousand, this diet would have brought the person adopting it to his grave; for, on those whose digestion is feeble, a large or exclusive allowance of sugar adds to their grievance, because the excess of nutriment, not being generally absorbed by their weakened system, becomes converted to bile, and causes great debility and wasting of the body. In seventeen experiments made on dogs, M. Chossat observed that, when the sugar diet fattened them, there was a general tendency to constipation meanwhile; and, on the contrary, when it produces an excess of bile in other dogs, their bowels were relaxed. Why English children suffer in their digestion after eating largely of sugar-plums, comfits

&c., is chiefly owing, however, to those delicacies being composed of the refuse of starch-works, mixed with plaster of Paris, pipe-clay, or chalk, and having, indeed, as little sugar as will suffice to give them a palatable sweetness, and they are often colored with gamboge, and sometimes with red-lead, verdigris, and other mineral poisons.

"Everywhere, the beasts of the field, the birds of the air, the reptiles, fish, and insects, are found to have a great liking for sugar and honey. Mr. Martin says he has tamed the most savage and vicious horses with sugar, and has seen the most ferocious animals domesticated by being partly fed upon it. The tamers of lions and tigers owe their power over them chiefly to a judicious use of sugar and other sorts of sweets, and also of lavender-water, and various other perfumes, of which feline animals are remarkably fond. In the sugar season, in the West Indies, the horses, mules, and cattle soon acquire plumpness and strength, by partaking of the leavings of the sugar-canes, after the manufacturer has done with them. In Cochin China, the elephants, buffaloes, and horses are fattened with sugar. We learn, from the Memoirs of Dr. Edward Cartwright (1843), that that ingenious man used to fatten sheep on sugar. To birds this diet proves so nourishing, that the suppliers of the European poultry-markets find that sugar, along with hemp-seed and boiled wheat, will greatly fatten ruffs and reeves in the space of a fortnight."

Sugar is now successfully cultivated on the highlands in Louisiana, and the quality is said to be superior to that grown on the richer river bottoms. The grain is larger, and it is much less liable to drip. Recent improvements have lately been made at the South in boiling and refining sugar, the particulars of which we wish some of our friends in that quarter would furnish us for publication. We notice that several of the West India planters are boiling up their skimmings and refuse molasses with other food, and feeding it with much success and profit to their stock, thus saving them the necessity of turning it into that liquid fire, ycleped RUM. All animals, they find, thrive well on such food, which is reasonable enough, as all sweets abound in carbon. The mixture would fat poultry, swine, sheep, and cattle equally well, giving a delicacy and sweetness to the meat which nothing else will. No planter now can have an excuse for making rum—he can hereafter dispose of his inferior molasses to a greater profit and more useful purpose

A VETERAN HORSE.

THE most extraordinary horse for his age which we have seen, is the veteran Charles, owned by O. Mauran, Esq., of this city. He was foaled in 1802, and reared by Mr. Brundage, of Horse Neck, Fairfield county, Connecticut. He was brought to New York, in 1810, and sold to Mr. Jesse Sackett. From Mr. S., he passed into the hands of Mr. Isaac Tucker, who kept a livery stable in John street. Mr. Oliver H. Hicks was his next owner, and from him Charles passed to others, all personally known to Mr. Mauran, who finally became his owner, on the 20th August, 1826. Since this, Mr. M. informs us, that he has been in almost constant use with him. He has not been sick or out of condition a single day during this whole time, nor ever had a sheet or a blanket on him.

Charles is fifteen hands high, of fine form and action, and evidently very well bred. He has a tanned muzzle, and is of deep brown color, interspersed now with grey hairs, particularly around the head. His teeth are still sound and good. He racks and gallops delightfully under the saddle, but has a fine square trot in harness. He is very playful and ambitious, and can still trot his mile within four minutes. We have had the pleasure of mounting him, and under our heavy weight (197 lbs.), he moves off as gaily and as easily as a colt. From the above record it will be seen that Charles is forty-three years old this spring. May he live and continue to bear his present kind master, till the United States has as many million inhabitants as he has years, and then as many more in addition.

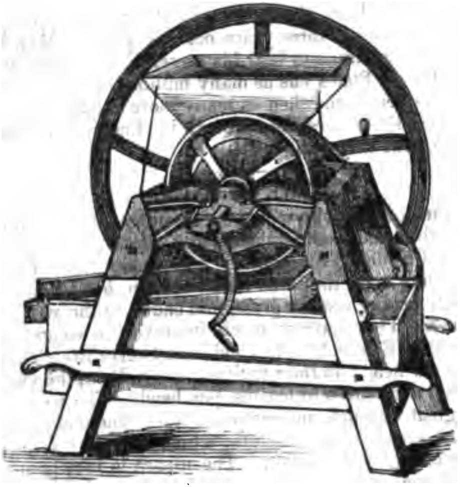
The oldest horse ever known in England, we believe, was fifty-two.

THE ALPACA.

THE person who would successfully introduce this beautiful and useful animal into the United States, would be doing his country a great service. They will live upon the same food as sheep, but are more hardy, eating coarser grass, and enduring the winters better. They have so much improved in weight of fleece in England, as to yield from twelve to eighteen lbs. per head; in their native country, Peru, the yield is not over seven to ten lbs. per head. The wool is in great demand, and makes a very fine and somewhat peculiar kind of cloth, which is highly prized, especially by the ladies. The alpaca is very gentle, and one of the most graceful of animals. We should much prefer them to deer as an ornament to the park. Their color is pure white, brown, black, or spotted. We prefer the white or jet black. They can be had of Earl Derby, in the vicinity of Liverpool, for £40 (say $200) per pair. We wish some of our wealthy citizens would import a few. The money expended in doing so would be a mere trifle to them, and the substantial benefit ultimately conferred upon the United States incalculable. Our agricultural products are so low that the attention of our farmers should be turned to the introduction of everything new and useful, especially when as promising as the raising of the alpaca. We took particular note of these animals when abroad, and brought home samples of their wool for distribution among our friends. Upwards of 3,500,000 lbs. of alpaca wool were imported into Great Britain the past year, and it is extensively manufactured there, especially in Manchester and its vicinity. Keeping alpacas on the mountain ranges of the Southern States would yield the planters large profits, and compensate them for the low prices of cotton on the seaboard.

FARM OF GENERAL WASHINGTON AT MOUNT VERNON.—This contained about 10,000 acres in one body, rather more than fifteen square miles. In 1787 there were five hundred acres of this land in grass, 600 in oats, 700 in wheat, and as much more in corn, barley, beans, peas, and potatoes, besides 150 acres in turnips. The stock consisted of 140 horses, 112 cows, 335 working oxen, heifers and steers, and 500 sheep. Two hundred and fifty hands were constantly employed on the estate, and 24 plows kept in operation when the season permitted. In 1786, it is said, 150 hogs, weighing 10,590 lbs., were slaughtered for provisioning the family. These were exclusive of beef, mutton, fowls, and fish. The estate was conveniently divided into separate farms, which General Washington visited every pleasant day. He was constantly engaged in making experiments for the improvement of agriculture, and was considered foremost among the enlightened farmers of his day. What a different aspect the farm now presents!

CORN MILL —Fig. 21.



The above is a cut of Sinclair's patent Corn Mill. It is well adapted for plantation use at the South, or for the isolated farmers of the West, and the possession of one of these machines enables every one to become his own miller. They grind coarse or fine meal with equal facility, perfection and despatch, at the rate of two and a half to three bushels per hour. When the screen is attached (as shown in the centre of the cut), and the fine meal is required to be ground, it will be necessary to drive the mill by horse-power. Coarse meal for horses may be ground by two men with good success. The grinding plates, which are made of the hardest composition metal, will last about two years without renewing; after they are worn smooth new ones may be put on without difficulty. A feeder is attached to the axle which is intended to pass the grain into the plates at regular intervals. This feeder is important, and obviates the difficulty and objection to cast iron mills generally

Directions for Managing the Corn Mill.—1st. See that the hopper, bolting-box, screen, pulleys and band, are properly put on and adjusted. 2d. Place the mill pulley on a line with the power band-wheel, and secure the mill to the floor or ground by cleets and braces. 3d. When all is thus fixed and ready, start the machine, then fill the hopper, and while the mill is running screw up the two thumb-screws, until the plates come sufficiently in contact to grind fine meal. When the plates are properly set or screwed up, the product will be about three quarters sifted meal and one quarter tailings. 4th. The corn should be old or well dried, otherwise the grinding will be very imperfect. 5th. Keep the journals well oiled with the best sperm or sweet oil. 6th. If driven by hand-power the screen and short band should be taken off, and the sifting done separate by hand, in the common way; these mills, however, should be driven by horse-power, if possible, at the rate of two hundred revolutions per minute, which is the proper speed to cause them to perform properly, and which speed cannot be got up by hand-power. 7th. If the main driving-band stretches or becomes slack, move the machine farther off. 8th. Should the feeder fail to act, stir and loosen up the corn at bottom of the hopper. The plates may also clog, especially if damp corn is put into the hopper. They may be cleaned by taking off the cap that covers them, and briskly rubbing between the plates a flat coarse brush or stick. Before removing the cap, it will be necessary to run the band-pulleys back, which may be done by slacking the screw that confines it. When necessary to put on new plates, remove the front iron frame, pulley, plate cap, and the caps over the boxes, which will allow the axle to be drawn out and to expose the plates, which remove and put on others, minding to have them fitted on exactly true. Price, with one set extra plates, $40.

PERUVIAN AND AFRICAN GUANO.

American Agricultural Association.—By order of this Association, at its last monthly meeting, the following resolution was passed:

"*Resolved*, That the Association cause an analysis to be made of the cargoes of guano from Ichaboe and Peru, now in the market for the use of members and all persons in the neighborhood; and that a report be drawn up with the analysis containing suggestions for the application of the manure; the whole to be published as early as practicable in the agricultural papers of this city and vicinity."

Peruvian Guano.—The specimen was obtained from Mr. Allen, 205 Broadway, who is an agent for the sale of it.

Uric acid	10·5
Ammonia	19·0
Phosphoric acid	14·0
Lime and magnesia	16·0
Salts of soda and potash	6·0
Oxalic acid, with carbonic and muriatic acids	13·0
Water	13·0
Sand	2·0
Volatile and organic matters	6·5
	100·00

Ichaboe Guano.—The specimen was obtained from Mr. Irvin, Front street, and is a fair sample.

Ammonia	13·5
Humic acid	4·0
Phosphates	25·0
Oxalic, &c., acids	20·0
Salts of soda, &c.	7·0
Water and volatile matter	27·5
Sand	3·0
	100·00

Prices and Relative Value of the Peruvian and African Guano.—These specimens are both very fair, and represent the peculiarities of the two kinds of guano. The absence of uric acid in the African variety, is the cause of its inferiority; for that body decaying gradually in the soil, continues to yield carbonate of ammonia for a long time, so that the stimulating effects of the guano are seen the next year, whilst the African is more fleeting. The prices of the two are, for Peruvian $45, and for African $35 per ton, for quantities amounting to five tons; and this may be considered, all things being taken into the account, a fair representation of their value in agriculture.

The African being soluble to the extent of 40 per cent., is better adapted for watering plants, and where very rapid growth is wanted. The Peruvian, on the other hand, acts for a longer time, and is better calculated for crops which continue to grow vigorously during many weeks. The two will probably produce very similar effects for one crop; but the Peruvian is much more active on the second crop.

Crops to which it is Applied.—It is hardly necessary to state, that the application may be made to every crop, for experiments are already multiplied with nearly every common plant or tree: to enumerate a few is sufficient. Wheat, corn, grass, the cerealia, sugar-cane, tobacco, apple, pear, and other fruit trees, flowers, cabbages, turnips, and other cruciferous plants; the experiments are fewest on leguminous plants. But the effect of guano will not be equal on all; for those plants requiring most stable manure, such as tobacco, turnips, and corn, are more benefited than grass, oats, or such as require less—the chief effect of the manure being due to the quantity of the ammonia it contains. The reason guano is serviceable to all plants, arises from its containing every saline and organic matter they require as food.

Kinds of Soil to which it is Applied.—It is used beneficially on all soils; for as it contains every element necessary to plants, it is independent of the quality of the soil—*one great point* being attended to, that the land be in *good tilth*; for, otherwise, the tender roots of the vegetable find an obstruction to free growth, and are crippled. Poor, well-tilled soils exhibit most increase by guano, for in them some essential to the growth of plants is more likely to be absent.

Amount to be Applied.—On wheat 250 lbs. per acre will be an average for a fair soil; 300 lbs. per acre for one that is poor, and 200 for a good soil. Corn, potatoes, turnips, cabbages, and garden vegetables, will require 300 lbs. in fair lands; but the amount may be diminished by 50 lbs., if two applications are made instead of one. For grass, rye, and oats, 200 lbs. will be enough.

Time and Mode of Application.—Seeds may be prepared by soaking in a solution of two lbs. of guano to the gallon of water, and this will answer for a first manuring, if they are left sufficiently long to exhibit signs of germination. Wheat and other small grains should be steeped in this solution about sixty hours, corn about one hundred hours. Thus steeped, the seeds of smut will also be destroyed. Half the quantity of guano allowed by these directions per acre, to be applied when the plant has fairly started, and is in second leaf. By this timely addition, the effects of many insects are avoided, and the seedling at once takes on a robust habit. The remaining half should be applied to the small grain crops when they are throwing out new stems, or tillering; to corn, as the tassel appears, or at the second hoeing, and so with other hoed crops. This application should be made, therefore, at the latest period of working, and as nearly before flowering as practicable. The guano should be sowed with a mixture of fine soil, gypsum or charcoal, to give it bulk, and divide the particles. No lumps should be thrown amongst the plants, for they burn them; and where an extensive application is to be made, it is better to screen the manure and pound the lumps. In sowing, reach the soil, if possible, for it is unserviceable to sprinkle it on the plants, and frequently destroys them. Select a season when the land is wet or moist, or when rain may be expected; for in dry weather the guano does not answer well, or even does injury, by burning the plant. But if the crop suits, always prefer manuring the plant or hill; do this whilst hoeing; less guano is thus used, and more certain effects result. One tablespoonful to the hill of corn, tobacco, potatoes, &c., is an abundance for each application. If a solution be preferred, mix one pound in ten gallons of water, and water sparingly with this on the soil, and not *on the plants*, at the times before mentioned, taking care to stir up the insoluble portion when applied. For this purpose, the African variety will be most suitable. Or, where rapid growth is wanted, irrespective of seed, the clear solution may be applied; the insoluble matter (phosphates, &c.) being reserved for wheat and corn. Guano may be composted with common soil, dry muck, road scrapings, or anything but *lime* and *unleached ashes*; for these liberate the free ammonia, and thus diminish the effects of the manure.

Value, Compared with other Manures.—So far as the experiments in England and Scotland may be adduced, one cwt. of guano is equal to about five tons of farm-yard manure on an average; but it is much higher for turnips than for grass, &c. It would be advisable that in the very different climate of the United States, comparative experiments be made on this point. Let twenty single cart loads of stable manure be used per acre on wheat, corn, &c., and contrasted with four cwt. of guano. It would also be of service to the agricultural world, that some experiments were made on the value of the organic and inorganic portions of guano. A plot of ground eight square yards may be divided into two parts, half manured with the ordinary guano, and half with the ashes remaining after burning. In this way the proportionate effect of the organic and saline parts would be estimated, and the conclusion be serviceable, insomuch as the saline matters can be mixed into a compost for a trifling sum, and thus the expense of guano avoided.

D. P. Gardner.

March 12, 1845.

Notice.—This publication is made by the American Agricultural Association, not that parties may be induced to purchase guano, but that attention may be called to the varieties for sale, and other particulars for the diffusion of correct information. It is their intention to examine all available manures, and make them known publicly, as well as the results of careful experiments in agriculture, horticulture, and the management of stock, and to issue not only information from time to time, but a series of Transactions, embodying the particulars of their experiments, analyses, &c. All those wishing to advance the cause of improvement are respectfully solicited to become members, and forward suggestions for the advancement of agriculture. Letters or communications to be addressed, post-paid, to the Secretary of the Executive Committee, Dr. D. P. Gardner, 412 Fourth street, New York. By order of the Executive Committee,

R. L. Pell, *Chairman*

LETTERS FROM VIRGINIA.—No. 6.

Farm of Mr. Sherman.—Nine miles from Washington, on the road leading to Fairfax Court House, is the farm of Mr. Sherman, consisting of some two hundred acres, under good cultivation; and the history of this farm is so characteristic of the region round about, that it may serve to illustrate, and in some measure explain, the present state of things in Virginia. Some twenty years since, a clergyman of wealth, talents, and leisure, purchased the entire estate, including nearly a thousand acres, erected a fine substantial brick house, and surrounded it with out-buildings of brick, at an expense of upwards of five thousand dollars; laid out the grounds in the vicinity of the mansion with great beauty and taste, and opened a large boarding school, for the reception of pupils, from Washington and the adjoining cities. At his death, which occurred soon afterwards, a large portion of the estate was disposed of at private sale, by his executors and heirs, and the family mansion, with the surrounding grounds, leased for short terms to a succession of tenants. These tenants having no other interest than that of securing profitable crops, not only speedily exhausted the soil, but suffered the house and buildings to become dilapidated—cut down the ornamental trees and shrubbery, so tastefully arranged by the late possessor—converted the parks and drives into corn and wheat fields, and potato patches, and were actually proceeding to turn the mansion itself into a vast *barn*, occupying the commodious out-houses as dwellings, in order to avoid the necessity of repairs, when the premises were purchased at a very low price by the gentleman, who subsequently sold them to the present owner, for a sum considerably less than the first cost of the house.

On coming into possession, Mr. Sherman found the house nearly destitute of everything, save bare walls; but these being of the most substantial and permanent materials, and in good condition, he soon found means to render it habitable; and being himself a practical farmer, aided by his sons, and by the natural fertility of the soil, speedily succeeded in placing the farm in good condition, and in realizing amply remunerating crops. He surrounded it, the first year, with good post and rail fences, repaired the various out-buildings, pruned and trimmed the fruit trees, restored the shrubbery, as far as practicable, and commenced a systematic course of cropping and husbandry. During the past year, he has erected a large and commodious barn, and surrounded it with all requisite conveniences for cattle and stock—carrying to his barn yard, from an adjacent spring house, by means of leaden pipes, a plentiful and continual supply of water. The barn being situated on the acclivity of a hill, a large stone basement, some ten or twelve feet in height, and forty or fifty in breadth and length, was constructed at a very trifling expense, compared with its utility; and this basement has been subdivided into stables for horses and cows, having free communication with the upper floors by means of the racks on the one hand, and the yard on the other. The great convenience, utility, and economy of a well-constructed and properly-located barn, are so obvious, that many of Mr. Sherman's neighbors, by whom such a farm appendage has hitherto been regarded as a senseless Yankee innovation, are taking measures for constructing one themselves. The difference in the mere market price of hay wintered in this manner, no less than its greatly-enhanced value for the use of stock, has demonstrated to the most incredulous, the superior advantage of a *good barn*, over the most scientific *hay stack*.

Mr. Sherman has now resided on this farm for three years, during which period its value has more than doubled; and he has several times, to my knowledge, refused twice the amount paid for it. These results have been attained simply by superior cultivation and good farm husbandry, as every one can perceive by comparing the soil with that of the adjacent farms in the neighborhood; and although Mr. Sherman stoutly insists that his land is intrinsically better than that of his neighbors, yet I am well convinced, that if he should to-day purchase and occupy the poorest farm within five miles of his present residence, he would, within a very short period, come to the conclusion, that *his land* was of a superior quality.

Farm of Mr. Hyde.—Nearly opposite Mr. Sherman's, on the west, is "Ingleside," the residence of Charles K. Hyde, Esq., formerly of New Jersey; a well cultivated and valuable farm of two or three hundred acres, with a fine dwelling, pleasantly located in a natural grove of stately forest trees. I cannot help admiring the good taste of these Virginians, in selecting the locations for their dwellings. There is something inexpressibly beautiful in the idea of a rural cottage, surrounded by the luxuriant vegetation of this mild climate, embosomed in shade and shrubbery, and rendered musical by the tuneful choristers of the wood. It is pleasant to withdraw for a few hours, from "the heat and burden of the day," to the cool verandah of such a dwelling and, with book, or friend, to recruit the exhausted physical energies, and leisurely contemplate the surpassing beauty of nature in her holiday attire. Mr. Hyde informs me, that, having purchased an estate near Williamsburg, in this state, he is desirous of disposing of "Ingleside;" and as I presume his terms will not be unreasonable, I commend the opportunity of making a valuable purchase, to such of your northern friends as may feel an inclination to test the beauties of a southern clime. Certainly I know of no more pleasant situation.

Lieut. Muse, of the U. S. Navy, attached to the astronomical observatory, at Washington, has also a fine seat in this neighborhood, with a small farm of fifty or seventy-five acres; and near him is Mr. Mackall of the Treasury, and Mr. Jones, of the Post-Office Department; each of them delightfully situated, and in possession of all the means and appliances of good husbandry. The lapse of a few years cannot fail, in my judgment, greatly to enhance the market value of the lands in this region, rapidly filling up as it is, by intelligent, systematic, and judicious farmers. A NEW-YORKER.

UTILITY OF BLUE GLASS FOR HOT HOUSES.—In vegetable growth, the blue rays are the most active, the red ones the least so. Hence the benefit of employing glass stained blue or green for the roofs of hot houses.

CORN MARKER.

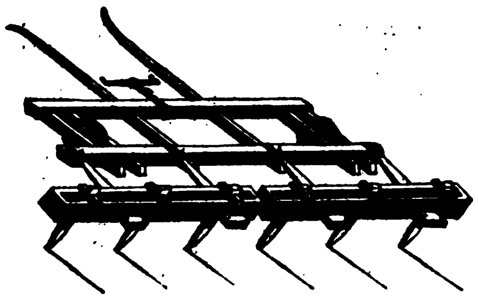
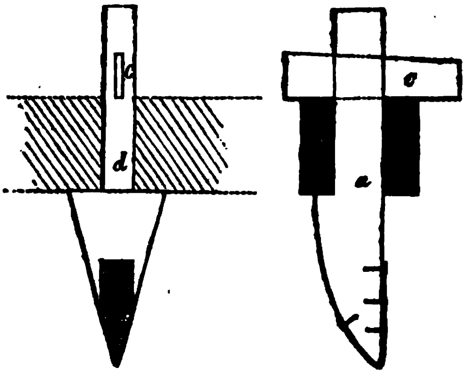


FIG. 26.

We are under obligation to Mr. Leavenworth for the above sketch of his corn marker, which for drilling or furrowing out for planting corn, potatoes, or other seed, will do the work of half a dozen plows. It may be constructed of any required width, from 3 feet to 30, or more if wished, and with or without wheels, and double as shown in the cut, or single if preferred. Wheels make it move easier and steadier. The teeth or markers may be set any distance apart. We think farmers will find this a great labor-saving machine; and it is better to plant *upon* the soil rather than *in* the furrow, as the bottom of this is more or less hardened by the plow.

The head of the corn planter is made of two pieces of 1½ inch plank, any required length, and 6 inches wide, riveted or pinned together, leaving a space 1½ inches between them. The teeth are set in this space as near as desired, and secured by keys. Six rows 2 feet apart, or four rows 3 feet apart, may be marked out with ease, by a single horse. The marker may be made lighter for garden work, and be drawn by hand.



MARKING TEETH.—FIG. 27.

One of these teeth presents a side and the other a front view. A strip of hoop iron is put on the end, which makes them wear much longer. *a*, tooth; *b*, *b*, head; *c*, key; *d*, tenon of the tooth fits in between the head; *e*, mortice for the key.

TO PREVENT BIRDS AND SQUIRRELS DESTROYING CORN.—Soak the seed half a day or so previous to planting in a moderately strong solution of saltpetre and copperas, and dry it with ashes, plaster or lime sprinkled over it. This preparation will effectually guard the seed from birds and squirrels, and give the corn blade, after germinating, a rapid start.

FAT SHEEP.

MAJOR Philip Reybold recently sent a very fine lot of fifty fat sheep to this market, principally of high grade Leicesters, varying from three-fourths to seven-eighths blood. Thirty head of these sheep were wethers, and twenty of them were ewes. The live weight of the wethers was 5,889 lbs.; the dead weight, 3,241 lbs., exclusive of the pelts; making a difference of 2,648 lbs., or within a fraction of 45 per cent. The largest wether weighed, alive, 292 lbs., the smallest, 180 lbs. The largest weighed, dead, 180 lbs.; the smallest 92 lbs. The live weight of the ewes was 2,893 lbs.; the dead weight, 1,432 lbs.; making a difference of 1,461 lbs., or a fraction over 50 per cent. The reader must not draw a conclusion in favor of the wethers in consequence of their losing less per cent., dead weight, as the ewes were several years the oldest, and consequently did not fat so kindly. The wethers were all two years old past. The largest ewe weighed alive, 182 lbs.; the smallest, 127 lbs. The largest weighed dead, 84 lbs.; the smallest 60 lbs. The butcher in this city contracted to pay 12½ cents per lb., dead weight, for the lot, delivered at Philadelphia, keeping the pelts for which they paid nothing. These averaged $1 77 each.

It was a very fine lot of sheep and did their breeder great credit. They were shown in Wall and several other of our streets a few days before being slaughtered, and were greatly admired, even by the money changers, who no doubt gladly parted with some of their cash for the mutton, and for once, themselves, got *fleeced*. The Hon. Daniel Webster at the same time was staying at the Astor House, and took the pains to walk up to the butcher's stall and choose one. We understand that Messrs. Colman & Stetson served this up in their best style, and, after dining a knot of political aspirants upon it, they united in a *stomach-felt* and patriotic toast to modern as well as ancient *Greece* (grease). But the best of the finale was, that Mr. Reybold carried home a pocket full of cash, and felt amply remunerated for his trouble

FARM OF MR. ROBINSON.

RETURNING from the State Agricultural Society show at Poughkeepsie, last September, we stopped over night at Newburg, and early the next morning walked out about a mile and a half to the farm of Capt. Henry Robinson.

This comprises 260 acres, and is part of an elevated plateau rising gradually from the Hudson. The farm is under a good state of cultivation, and is devoted principally to the dairy; the veteran Captain keeping upward of 40 head of noble cows, a high cross of Durham. He informed us that he had taken great pains when he first commenced operations there several years ago, to endeavor to procure a stock of superior native milkers; but with all his trouble and care in choosing, he got so often disappointed that he at length gave the matter up in despair, and took to crossing with a good Short Horn bull. The result of this is, that he has a choice herd now of fine formed animals, nearly every one of which is a superior dairy cow; and when dried off they will fat kindly, and make a superior butcher's beast, so that he reaps a double profit in consequence of having improved his herd. These he keeps principally on the soiling system, allowing them to have a sufficient run in a lot near by the barn to give them ex ercise. Rye, clover, and corn, cut green, is their principal food in summer. Capt. R. has an excellent corn-stalk cutting machine of his own invention, which we think highly of, when one wants to do business on a large scale. It is very simple in its construction, is moved by a two horse-power, and we understood him to say, that it would cut 240 bushels of corn-stalks per hour, measured after cutting. His churning is also done by horse-power; one horse moving the dashers of four large barrel churns, and bringing the butter with ease and rapidity. The stables are extensive and convenient, occupying two sides of the barn-yard. The piggery is also well arranged, and is graced with a fine stock of the large English white breed imported by himself. These animals easily attain 400 to 600 lbs. at eighteen months and two years old. They are generally very fine in their hair and all other points.

Captain Robinson commanded for some time one of the Havre packets out of this port, and though he lives on one of the noblest rivers in the world, this does not seem to quite satisfy his sailor habits; accordingly, he has formed him a mimic sea on his own territory; stocked it with delicious European carp, imported by himself, and other fish; built him a sail-boat, and can still make his voyages whenever disposed, and harpoon and hook the scaly inhabitants of the deep, and not move from his farm. He is stocking the Hudson river at Newburg with carp, and generally gives them, when to be spared, to his neighbors. Mr. Pell, of Ulster, informed us that it was here he procured his stock.

The house is neat and handsome, and commands a fine view of the noble Hudson, the adjacent country, and bold mountain scenery, opposite and below, of the Highlands. Among the ornaments of the grounds around, we noticed a full length female statue resembling the graceful figure-head of a ship. We forgot to ask, but would venture to guess, it might have been that which adorned his own gallant craft transferred by the veteran sailor, by way of memento, from her bows, to grace the lawn of his pleasure-grounds. If so, it must be a happy and quiet change to the fair figure. Having now and then taken a toss on the rough old ocean ourselves, we know something of its upheavings, and could not but congratulate the fair statue upon finishing its stormy voyages and being moored at last in so comfortable a birth.

AMERICAN AGRICULTURAL ASSOCIATION.

The regular monthly meeting of this Association was held in the rooms of the Historical Society, at the University, on Monday evening 3d of March. Hon. Luther Bradish, the President, in the Chair.

The meeting was well attended, and several distinguished gentlemen from abroad were present. The table was adorned with beautiful plants in full bloom, and there were a variety of choice seeds sent in for exhibition—oats from Mr. Pell—wheat from Mr. Seeley, and quite a package of various kinds of seeds from the Hon. H. L. Ellsworth, Commissioner of Patents at Washington.

The Executive Committee made a favorable report, showing an increase of 47 members the past month.

Dr. Daniel P. Gardner was appointed chemist of the Association.

Mr. Kerr, from Scotland, read an interesting paper, giving a condensed view of the agriculture of Scotland.

Mr. R. L. Pell, of Pelham, read a paper on the raising of several crops of the same kind in the same season, and exhibited a specimen of oats which were a part of the second crop raised the past year from the same ground as the first were taken from. He also read an interesting paper on soiling.

William A Seeley, Esq., read an extract from a letter to Mr. Allen, from Mr. Norton, of Connecticut, now in Scotland (see page 128 of this number for the same), on the subject of electricity, giving an account of experiments made in England by Mr. Pine and others, of its effects on vegetation. After this he entered into a succinct history of the whole matter, and finished by generously offering any part of his farm on Staten Island to the Association the ensuing season, to conduct any desired experiments in electricity or general agriculture.

Several resolutions were passed in the course of the evening. One, that specimens of the Peruvian and African guano, now in this market, should be analyzed, and the analysis, with suitable directions for its use, be furnished the different papers for publication as soon as practicable. (For this analysis, &c., see page 108 of this Number.)

An excellent collation was prepared for all present, in the upper room of the Historical Society, to which, after the meeting was over, the members adjourned, and indulged in free and social intercourse.

The next meeting will be held at the same place on the 7th of April.

Subsoil Plowing.—We are glad to see that this new branch of husbandry is obtaining increased attention. We were among the first to adopt it in this country, having made several experiments in it seven years ago. Several of our farmers in this vicinity have procured subsoil plows, determined on trying them effectually the present season. Those who used them last year are highly satisfied with their experiments, and generally intend extending them this spring. They stir the soil without turning it up, which gives the roots of crops a wider range for their food.

Horticultural Society, Cleveland, Ohio.—We beg to return our thanks to this Society, through their Secretary, J. F. Hanks, Esq., for the honor they have done us in electing us an Honorary Corresponding Member thereof. We have frequently noticed its praiseworthy efforts in behalf of Horticulture, and are pleased to hear that they have met with so much success.

To Exchange Papers.—We observe the wholesale plunderings from our journal begun again, and kept up for the past three months. Long and valuable articles, together with cuts, have, in several instances, been copied, without the slightest hint given of the source from whence taken. We have commenced sending these papers back, marking the articles, and if they are not credited hereafter, we intend to stop the exchange.

We would respectfully call the attention of our readers to the reviews of books in this Number. Most of them are highly valuable works, and should be placed in the library of every Farmers' Club.

SEASONING AND PRESERVING TIMBER.

No. 1.

Experiments, in accordance with the testimony of history, prove that, if deprived of its sap or substances tending to organize, and excluded from the contact of moist air, all woody fibre may be preserved for an indefinite period. At a certain depth under water, too, it may be preserved indefinitely, as is proved by the durability of piles. But if not protected against the action of air and moisture, the particles of woody texture are gradually forced asunder, their bright colors fade, pass through various shades till they become jet black, and in process of time, the whole mass crumbles into atoms and final decay.

Numerous attempts have been made from the days of the Romans, to render wood impervious to rot, the ravages of insects, and the action of fire. Among these, the patents of Kyan, Margary, Boucherie, Burnett, and Payne, have succeeded in this object to some extent, by introducing various metallic oxides and alkalies into the cells of the wood, by means of exhaustion and pressure; but whoever will attentively examine a piece of timber with the microscope, will at once perceive, from the smallness of these cells, how difficult it would be to fill them with any fluid by the processes ordinarily employed. Previous to the inventions of Boucherie and Payne, the chief substances made use of for impregnating the timber, were expensive preparations of mercury and copper, which, on grounds of economy alone, would forever exclude them from general use. By Kyan's process, the timber is usually steeped in a solution of corrosive sublimate (bichloride of mercury), in upright tanks, the proportions of the ingredients recommended, being 1 lb. of the corrosive sublimate to 5 gallons of water; and it has been found by experiment, that a cubic foot of oak timber absorbs 3 pints of the liquid, which will usually require about three weeks.

The ingenious method adopted by Boucherie, was, to cut off the top and a portion of the branches of the tree, at the period of the rising of the sap, and then plunge the lower end of its trunk, cut close to the ground, into a basin or vat, containing a solution of pyrolignate of iron, or some coloring matter, which capillary attraction draws up into the cells of the wood in place of the sap—a process evidently limited in its application, and wholly unfitted for the preparation of any kind of timber, except for hoop poles or very small trees.

The chief merits of the more recent invention, in England, by Mr. Payne, consist in the combination and chemical action of different elements, producing a new substance, with new physical characters, which, it is stated, render the wood operated upon uninflammable, free from the ravages of insects, and entirely proof against dry rot. By this process, the timber is first placed in a vacuum, in a solution of sulphate of iron (copperas water), which is made to saturate it thoroughly by exhaustion and pressure. A similar operation is then followed with a solution of the muriate of lime, and within the pores of the wood there is thus created, by decomposition, an insoluble sulphate of iron. The principle acted upon by the inventor, was, that the source of the evil exists in the very nature and properties of the wood itself, and that a complete change must be effected in its structure by the diffusion of a substance capable of resisting external influences and arresting internal decay. By this process, it is computed, that, taking all expenses into estimation, the cost of preserving the sleepers of a mile of railway will not exceed $500. Each sleeper, it is stated, will absorb half a pound of copperas in solution, and an equal weight of the muriate of lime.

SOAK FOR SEEDS.

It was observed by Baron Humboldt, that simple metallic substances are unfavorable to the germination of plants, and that metallic oxides promote it in the exact ratio of their oxidation. Consequently, he was induced to seek some substance with which oxygen might be combined in such a manner as to facilitate its separation. In order to effect this, he made choice of *oxygenated muriatic acid gas*, in which he immersed some seeds of the common garden cress (pepper grass), which exhibited germs in the remarkably short period of *six hours;* whereas, when immersed in water alone, they did not germinate in less than thirty-two hours.

Another very successful and economical steep for garden or other seeds, consists of a solution of a *quarter of an ounce* of chloride of lime to *one gallon* of water, in which the seeds should be allowed to soak for the space of *four hours*, and then be sown in the ordinary way. It is stated, on good authority, that corn and peas, treated in this manner, have been known to throw out germs *one and a half inches* in *twenty-four hours;* and in *forty-eight hours*, to acquire roots more than double that length.

The latter experiment may be tested, at a trifling cost, and should it succeed, as stated above, the germination, or coming up of many seeds, may be accelerated at least a week or ten days.

FINE-WOOLED SHEEP AT THE WEST.

Mr. Nathaniel Sawyer, of Cincinnati, Ohio, writes us, that he exhibited six bucks and six ewes of his flock, at the show of the New York State Agricultural Society, at Saratoga last September, and obtained a premium upon them. His flock is what is called the Guadaloupe variety, and came originally from New Hampshire. He considers it a pure flock of Merinos.

Mr. Sawyer has a flock of about 1,200 on the praries, 25 miles west of Columbus, Ohio. He says his sheep are as healthy there as in any part of the Union. The only thing he fears is *dogs.* We trust the Legislature of Ohio, at their present sitting, will have the good sense to pass a law to tax dogs for the benefit of the flock masters of their state. Several thousand sheep are annually killed by worthless curs, kept for no purpose, but to gratify miserable loafers and reckless sportsmen.

We are familiar with the country Mr. S. speaks of, and a more eligible one for sheep and general farming purposes it would be difficult to find.

How to Make a Durable Whitewash.—Take a peck of quicklime and slake in hot water; add, while hot, 6 lbs. of lard or any common grease, 2 lbs. of Spanish whiting, and 3 gills of salt. Stir the mixture well and apply it while hot. Rain nor dampness, it is said, will not darken its color for a great length of time.

We must apologise to Dr. Kirtland, the respected writer of the following article, for not inserting it sooner. It was addressed to Elisha Whittlesey, Esq., of Ohio, and kindly forwarded us for publication several months since. We should be happy to hear from Dr. K. direct, on the fruits of the West, for few have paid more attention to them, or are equally capable of giving their correct descriptions.

THE FOX GRAPE.

Your communication respecting a seedling grape, said to have been found in Rockport, and other matters relating to horticulture, was received on the 1st of March last. Having received a similar account of a native grape in that locality, twenty years since, from Mr. Canfield, I was determined to find it if possible. During the past summer, several individuals have given me information where it might be found; but on pursuing up the matter, I could only meet with the common fox grape, till I at length concluded that this seedling must grow in the garden of the famed *Prester John*, who, you know, existed in the imagination of the earlier adventurers. I was still reluctant to believe that it was an ideal thing, especially as I recollected once to have picked a bunch of peculiar grapes while creeping through a swamp, five or six miles up the Cuyahoga. At the moment, I was pursuing, stealthily, a flock of partridges, with my gun in hand, and I ate the fruit without much attention; but it then occurred to me that the flavor was sparkling, and resembled somewhat that of the Alexander. I have never again visited that locality.

Two weeks before the Isabella grape ripened in this city, Mrs. Cushing presented our Horticultural Society a bunch of fine-looking, and apparently mature grapes. No name or history could then be furnished, only that it was the product of a vine, cultivated in Dr. Cushing's garden, and growing there when the place was purchased by him.

The fruit was referred to our Committee on Synonymes. They reported, "that it was an unique, unknown to them, but worthy of cultivation, from its early period of ripening, as well as its other good properties." Their belief at the time was, that it was probably of foreign origin. Dr. Cushing has since thoroughly investigated the matter, and by his authority, I am permitted to inform you, "that Mr. Case (with whom you are well acquainted, and whose accuracy in all kinds of business is proverbial), asserts that he, many years since, introduced the original vine into the gardens of Cleveland, from the banks of Rocky River, and that from that stock was propagated the vine now growing in Dr. Cushing's garden."

Cultivation seems to have greatly improved it; for during the last week, Dr. Cushing gave me a bunch from Mr. Case's vine, which is running at random in the garden without the restraints of pruning or cultivating. The grapes are much smaller and not of as fine flavor as those produced from Dr. Cushing's vine, which has been correctly managed. On tasting those from Mr. Case's vine, I recollected that they were similar to those I met with in the Cuyahoga swamp, several years since. Not having taken notes of its character at the time Mrs. Cushing presented the fruit to our society, I cannot attempt to give anything like an accurate description of it, but will venture to assert, that I think it worthy of further trial, and that it may be a valuable addition to our increasing list of cultivated varieties. It is superior to Norton's Virginia Seedling, if we have not been imposed upon in this place by some spurious variety under that name. I should add, that though it apparently ripens earlier than the Isabella, it continues to improve with the advance of autumn, and does not attain its finest flavor till it has been acted on by the earliest frosts. Such is Mr. Case's statement.

It has been suggested that it is a large variety of the *Vitis Æstivalis*, of Michaux. From the observations of Dr. Darlington, attached to the description of that species in his Flora Cestrica, I am confirmed in the belief. Still I think it is an unusual variety of the summer grape. Dr. Cushing informs me that he shall place his vine at the disposal of a practical gardener who will as soon as possible propagate from it for supplying any demand.

Mr. Wood is cultivating in his garden, a fine variety of the Vitis labrusca, or fox grape. The berries are large, globular, slightly flattened; amber color; flavor extremely sweet and luscious; and odor profusely fragrant. It is known as the Olmsted grape. Charles Olmsted, Esq., of East Hartford, Ct., informs me that it was introduced into Rockport by himself, and that it was originally discovered by his father, growing in a swamp in Hartford county. (*a*) As it ripens several weeks earlier than the Isabella, and is perfectly hardy, I have no doubt it will be found very valuable in locations where our hybrid varieties do not generally mature. It is highly esteemed here, where the Isabella, Catawba, and Alexander are cultivated with great success.

Col. Coit, of Euclid, exhibited at our fair last week, a very similar fruit, only late in maturing, produced from a vine, found native in Liverpool, Medina county, Ohio.

Of the hundreds of seedling varieties of apples that I have examined in northern Ohio, during the last twenty years, I have not found one that I can consistently introduce into my list of *primes—that list is limited to less than one dozen varieties.*

Of seedling pears only one has as yet passed inspection, and that is a seedling raised by Col. Coit. It is fine. Our society voted it the name of the "Coit Pear."

Of seedling peaches, Mr. Cable of Newburg has exhibited two new varieties, from the old red-cheeked Melacaton. They are both delicious and beautiful. They were named by our Society, "Cable's Early Melacaton," and "Cable's Late Melacaton."

As to cherries, I would state, that I have two or three hundred thrifty seedlings from the pits of the Graffion or Yellow Spanish. Some of them have already shown fruit, and promise well, but must be tested more fully before they are introduced to the public.

Mr. Cable has raised a seedling that resembles very closely the parent stock, the Swedish, which is here a valuable variety. Very truly, yours,

JARED P. KIRTLAND.

Cleveland, O., Sept. 23d, 1844.

(*a*) We have frequently gathered this grape near the banks of the Shetucket, in the town of Norwich, and other fine kinds which we have never seen growing elsewhere in New England. We are confident that they would be well worthy of cultivation, and greatly improve by it.

HOME-MADE GUANO.—NO 3.

Contents of Vaults.—Of this last enumerated substance, so nearly allied to guano in its character, it is needless to speak, of its great value as a fertilizer. Everybody knows and acknowledges it; and almost everybody turns away with ineffable disdain from any *practical* consideration of its utility. As if, what has once ministered to the gratification of the palate, and perhaps been the means of yielding the highest enjoyments which gluttony knows or can appreciate, has, by this one metamorphosis, been for ever precluded from any further use or benefits. Nature is not so prodigal of her means; her great Author, though he can create original materials with the same facility that he uses such as have already been called into existence, by his own example teaches his creatures a more rigid economy. And he effects this object in a way to elicit the admiration, and challenge the highest respect of his intelligent creatures. He has prescribed rules, Deuteronomy xxiii. 12, 14, which, although designed for a rude and semi-civilized people, embody principles of utility, whose wisdom cannot be excluded, wherever they can be conveniently applied.

Before these offensive materials are brought again to the notice of mankind, they are blended with the earth from which they have been temporarily separated; are intimately mixed with the soil; they lose all their repellent odor; the original and ultimate elements are there evolved, and form new combinations; first with the soil, and afterwards with the luxuriant vegetables that spring up in their midst; and the waving grass, the nodding corn, and even the stately forest that lifts its majestic forms far heavenward, owe their whole strength and substance to this loathed material, or its kindred elements; while to the dahlia and lily, it lends a lovelier hue; and the rose blushes deeper, and sends forth a still more delicious fragrance from the contact.

While economy and our interest lead us to investigate and provide a proper mode of appropriating this substance to our soils, a just appreciation of cleanliness, health, taste, and even decency, require a total modification of the present system in regard to its disposal. In the country, vaults are usually constructed so shallow as to be in the highest degree offensive to the double sense of sight and smell; in cities, they are almost equally offensive to smell and taste. They are sunk deep, it is true, but not beyond reach of our olfactories; while from their polluted reservoirs, the fountains which before ministered to the health and comfort of all, are now the prolific sources of disease and abhorrence. Who has not smelt (and even tasted) the loathsome mixture from the ancient pumps in the lower wards of New York, which formerly welled out water as pure as nectar? And to such an extent have some of the wells of Boston become contaminated from this source, that Dr. Jackson, an able and entirely reliable chemist, found an appreciable per centage of the contents of their vaults mixed with them! Are such things to be tolerated in this enlightened age, and must our interests, health, enjoyment, be longer prejudiced, by the grossest neglect to appropriate a small part of that invention to this subject, which is daily and successfully applied to objects of much more difficulty, and far less consequence? Every village in the Union can well afford to pay $10,000, and every city $1,000,000 each, for the invention of such a vault as would effectually secure every particle of matter deposited in it; prevent the escape of any noxious effluvia; and, finally, allow of a ready and economical removal. Let some of our inventive and scientific minds be applied to this subject, and this great desideratum will not remain long unachieved. The State Agricultural Society of New York, the American Institute, and every State Agricultural Society in the Union ought to offer a reward beyond all others from $200 to $1000 for the successful accomplishment of this much desired object.(*a*)

Vaults should be differently constituted to suit different situations. In all cases, they should be perfectly tight; in some they may be made of mason work, in others of strong, durable plank; and when they cannot be sunk below the surface, as is sometimes the case in cities, they may be made of some of the mixed metals, properly guarded against corrosion, such as neutralized zinc, coated sheet or boiler iron, &c., which might be easily removed with their entire contents. Until some more convenient or economical, or less bulky combination is suggested; turf, peat, tan-bark, saw-dust, charcoal, or sulphate of lime may be added to the contents of the vault, from time to time, to combine with and disinfect the volatile ingredients, prevent their escape, and hold them for future use. Quick lime (carbonate of lime) is a wasteful application, as it expels the ammonia. It is useful only to purify and sweeten the air.

When easily accessible (as they ought always to be), these contents, thus neutralized and rendered as inoffensive as ashes or turf, should be frequently removed and mixed with other compost, or, what is better, at once spread over the soil and mixed through it. These materials possess all the constituents of Peruvian guano, and in a form nearly as concentrated; and if effectually husbanded and added to the soil, would increase the crops of the United States annually, from $50,000,000 to $100,000,000, and save incalculably in the health and comfort of the inhabitants

It is hardly necessary to fortify these suggestions by any authority, yet it may be well enough to say, that Mr. Haywood, a gentleman of great experience and ingenuity, has made an able and extended report on this subject recently in England, in which he affirms, that the excrements of one hundred of the rigidly dieted inmates of the Lunatic Asylum at Derby, will keep one hundred acres of land on the four course system of rotation in the highest state of fertility.

The use of the above manures would save immensely in the labor of exterminating weeds which are produced from compost made up of barn manures, and the vegetable alluvial deposits of road drains and ditches, all of which are highly charged with obnoxious weeds and grasses, the prevention of whose growth and maturity constitute so large a share of the labor of the farmer in successfully rearing his crops. Travellers allege, that the considerate and careful Chinese never use other than the last above-mentioned fertilizer for their tillage crops, and by a rigid adherence to this practice for years, they save themselves the double labor, of first planting noxious vegetables, and then, with an infinite degree of pains, eradicating them. This system, long persisted in, has resulted in the removal of every species of vegetation, except the sole one which the husbandman has profusely committed to the soil. A similar system might be advantageously introduced on a portion of the cultivated land, in this country, even with our comparatively sparse population, not only with the above manures, but with all other artificial ones, such as peat and its mixtures of fish or other purely animal matters, ashes, lime, plaster, salt, the nitrates, sulphates, &c., with a vast advantage both in the saving of labor and the increase of crops.

Buffalo, January, 1845. R. L. A.

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(*a*) We will make a simple suggestion to the public without charge. Insert under each aperture of a privy, drawers made of wood, iron, or metal, two feet wide, two feet deep, and any required length, with handles attached at each end, so that they can be as easily drawn out and handled as those of a desk. Put into these drawers peat, mixed with a little plaster of Paris, or charcoal dust mixed with plaster, to the depth of six inches or a foot; or, as the fæces accumulate in them, add a pound or so of copperas dissolved in a few quarts of urine, to every fifty pounds of fæces. Thus arranged, not the slightest unpleasant smell would arise from the privy; and every week or fortnight, carts with tight boxes on them, should call at the houses, and these drawers be taken out and emptied into them. In this way the yards would be purified of a shocking nuisance, and vast quantities of poudrette would be weekly manufactured, for which any company could well afford to pay the city of New York $100,000 per annum.

In building a large hotel at Morristown last year, Mr. Gibbons directed a long vault of stone to be laid in water cement, to be constructed under the row of privies, gradually declining it one foot to the end of the row. Into this vault charcoal dust and plaster is thrown every little while; these mix with the fæces, and all settle to the lower end, whence the poudrette is taken in carts and applied to the land. Such a vault ought to come up one or two feet above the surface of the ground, and not be over two feet below it, so that the poudrette thus made could be easily loaded into carts.

Oil of vitriol diluted in water, at the rate of five lbs. to a barrel, poured into a vault of moderate size, will completely disinfect it. When drawers are placed to catch the fæces, as directed above, no other liquid save urine should be emptied into them.

Boussingault estimates the solid and liquid excrement of a man at 618 lbs. per annum, containing 18 lbs. of nitrogen; a quantity sufficient to grow 886 lbs. of wheat.

THE PLEASURES OF HORTICULTURE.

In a very interesting book on the *Art of Living*, by Dr. Henry Duhring, published in London in 1843, the author introduces the subject thus:

"Of all the various branches of useful knowledge which it can be the object of our endeavors to possess and to promote, none appears to me of greater importance to every human being, than that knowledge which teaches us in what manner, and by what means, we may hope to render our existence as pleasant or happy as it possibly can be. Taking as a principle, *that the study of Nature, and the practicé of Horticulture, constitute the surest foundation of man's happiness.*"

The Dr. then proceeds to point out how this is, and it will not be uninteresting or unprofitable to hear what he says. Listen, then, for we are sure you will be pleased. "As, in order to secure health and cheerfulness, it is not only a condition of our nature that we must labor, but also that we labor in such a way as to produce something useful or agreeable; whatever lives, grows, and undergoes changes before our eyes, if produced by our own labor, must be more productive of enjoyment to us than mere brute matter. Hence a man who plants, prunes, and trains trees, strikes plants from cuttings, or sows a grass-plot in his garden, lays, as it has been well observed by Mr. Loudon, a more certain foundation of enjoyment than he who builds a wall, shoots at a mark, or plays at bowls. The pleasure which is enjoyed from the contemplation of what we have planned and executed ourselves, is also infinitely greater than the pleasure which can be experienced by seeing the finest works belonging to, and planned by, another. For our own work is endeared to us by the difficulties we have met with and conquered at every step; and every such step has its history, and recals a train of interesting recollections connected with it. The love of the beauty and sublimity of nature is also an inherent principle in the human soul, though it may not be equally developed, or of the same strength, in every individual. The good and the wise of all ages have enjoyed their purest and most innocent pleasures in a garden, from the beginning of time, when the father of mankind was created, until, in the fulness of years, He, who often delighted in a garden, was at last buried in it."

Who, after reading this, will not be ready to admit, that the science of Horticulture has the strongest claims to our regard, and should be fostered and encouraged to the greatest possible extent? Who does not feel, that of all pleasures, that to be derived from a well regulated garden is infinitely more delightful than any other? If there be those who are insensible to every such emotion, it is to be hoped they will be regarded as exceptions to the general rule, for we hold it to be an admitted truth, that *most* men are attached to horticultural pursuits, and contemplate with admiration, the inimitable work of God.

As a recreation, gardening has ranked among its votaries the most renowned philosophers and illustrious princes, and has ever been the favorite amusement of the most eminent and worthy of mankind. It is an enjoyment for which no man can be too high or too low; a pleasure to the great, a care to the humble. The interest which flowers have excited in the breast of man has never been restrained to any particular class of society, or limited to one particular quarter of the globe. Over the whole world we find them liberally distributed, as mental medicaments, to impart cheerfulness to the earth, and to furnish agreeable sensations to its inhabitants. The savage of the forest, in the joy of his heart, binds his brow with the native flowers of his romantic haunts, while a taste for their cultivation increases in every country, in proportion to its advancement in civilisation and refinement. A garden is powerfully attractive in binding men to their homes, therefore, every encouragement given to promote a taste for ornamental gardening secures an additional guarantee for domestic comfort, and the unity, morality, and happiness of the social circle. As a recreation, it also contributes materially to health, advances intellectual improvement, softens the manners, and subdues the tempers of men.

Flowers are of all embellishments the most beautiful, and of all the sentient tribes, man alone seems capable of deriving enjoyment from them. From infancy we love them, and as this attachment increases with our years, it becomes a fertile source of comfort and gratification in our declining days. The child no sooner walks, than its first employment is to plant a flower, removing it ten times in a day to wherever the sun appears to shine most favorably. The school-boy in the care of his little plot of ground is relieved from his studies, and loses all the anxious thoughts and cares of the tasks in which he has been engaged, or the home which he may have left. In manhood, our attention is generally demanded by more active duties; still a few hours' employment in gardening affords a delightful recreation, and as age obliges us to retire from public life, the attachment to flowers returns to soothe the period of our declining years.

In the growth of flowers, from the first tender shoots which rise from the earth, through all the changes which they undergo to the period of their utmost perfection, man beholds the wonderful process of creative wisdom and power. He views the bud as it swells, looks into the expanded blossom, and delights in its rich tints and fragrant odors; but, above all, he feels a charm in contemplating the precise conformation and mutual adaptation of its organs, and the undeviating regularity with which the various changes are effected; before which, all the combined ingenuity of man dwindles into nothingness. For, while the simple cultivation and management of flowers is productive of much innocent pleasure, how immensely is that pleasure enhanced when science is applied as its auxiliary! The cultivator of flowers, on whom the light of science has just dawned, feels like one emerging into a new sphere of existence. A multitude of subjects previously unheeded, present themselves to his consideration, which, as he proceeds to contemplate them, diverge into successive series of interesting associations, and awaken in his mind emotions of pleasure and gratification of which he was previously altogether unconscious. The development of a leaf on the most familiar tree, offers a field for his observations, for he learns that it is destined to bring forth, nourish, and mature a germ, which is capable of producing a distinct tree, that in process of time would equal or even exceed in size the parent that forced it into existence. He observes the leaves wither and fall in the autumn without regret, informed that they have duly fulfilled their important functions, and that were they capable of remaining, they would only be productive of harm by exciting the latent buds into premature activity, thus causing them to perish by the inclemency and frost of the coming season.

On such a subject, however delightful in itself, it is perhaps after all unnecessary to expatiate, for the *pleasures* of gardening are scarcely communicable, nor are they derivable from elaborate treatises. They must be sought after to be duly appreciated, and once tasted, the mind will never become satiated; but, like the bee, will rove from flower to flower in search of delicious and nutritive sweets, extracting fresh stores of wisdom and pleasure from each successive object, till, finally, it succeeds in amassing that which most truly constitutes man's wealth—a fund of knowledge of his Creator's perfect works. W. W. Y.

Flushing, L I., Dec. 2, 1844.

SHEEP HUSBANDRY IN SPAIN.—No. 4.

The season for sheep-shearing, in Spain, like the harvest and the vintage in corn and wine countries, is a time of great festivity and rejoicing, both to the proprietor and the workmen. A multitude of shearers, washers, and other attendants, are fed upon the flesh of the culled sheep, and it would seem that the slaughter occasioned by this season of feasting would be sufficient to consume the whole flock.

The operation of shearing commences on the first of May, provided the weather be fair; for if the wool be not quite dry, the fleeces, which are closely piled upon one another as soon as they are taken off, would ferment and rot. It is for this reason that the business is performed in large spacious buildings called "Esquileos," which are usually so arranged as to receive entire flocks of twenty, forty, and even sixty thousand sheep; and besides, the constitutions of the ewes are such, that if they were exposed, immediately after shearing, to the air of a bleak, stormy night, they would all perish.

A certain number of sheep are led into the great shelter-house, built in the form of a parallelogram, four or five hundred feet long and one hundred wide, where they remain during the day. As many sheep as it is judged can be despatched by the shearmen the next day, are driven into a long narrow passage, called "Sudadero," or sweating-place, where they remain all night, crowded as closely as possible together, in order that they may profusely sweat, which is to soften the wool for the shears, and, as the shepherds say, "to oil their edges." By degrees, the next morning, the sheep are led into the spacious shearing-room, which joins the sweating-place. As fast as they are sheared, the shepherd carries them off to be marked with tar, which usually consists of the first letter of the name of the proprietor, and each subdivision is denoted by the part of the sheep on which this letter is placed; and as this operation is necessarily performed upon one at a time, it gives a fair opportunity to cull out for the butchery all the sheep of the flock which have lost their teeth.

A man can shear twelve ewes in a day, or eight rams. The fleeces of three of the latter often weigh in the dirt or yolk, twenty-five pounds, which is equivalent to those of four wethers, or five ewes. The reason of the difference in the number of sheep sheared in a day is, not only because the rams have larger bodies, are stronger, and have more wool, but the shearmen dare not tie their feet as they do those of the unresisting ewes. Experience has taught them, that a bold, rebellious ram would struggle even to suffocation thus confined under the shears; consequently, they gently lay him down, stroke his belly, and actually beguile him out of his fleece.

The sheep that have been shorn are allowed to go to the fields, if the weather be fine, in order to feed during the day, and in the evening they return to the yard in front of the shearing-house, to pass the night, and if the weather be cold or cloudy they are sheltered within. Thus they are brought, by degrees, to endure the open air, and their first days' journey, from the esquileos to the mountains, are short, where we will leave them, having followed them through their annual peregrinations, and go back to their wool. D'Jay Browne.

New York, March 12, 1845.

VIRGINIA LANDS.

compliance with my promise, I will attempt to
ou a limited description of that portion of Vir-
which I went to see for the purpose of settling.
went to Washington, and having letters to the
S. B. Strong, M. C. of this district, and the
M. B. Leonard, of your city, I stated to them
t I wished to visit Eastern Virginia, when they
troduced me to the Hon. Messrs. Bagly and Atkinson, of Virginia. These gentlemen gave me some information in relation to the land in their districts, and letters to some of their friends residing in the counties I wished to visit.

From Washington I went by the railroad to Richmond, and from Richmond down James river by steamboat, stopping at Grove wharf, the steamboat landing for Williamsburg. The north bank of the James river is perhaps one of the finest wheat districts in the United States; the Shirley estate, nearly opposite City Point, averages about 30 bushels of wheat per acre. The Brandon estates make 10,000 bushels each per year. Westover, and many other estates, in the same proportion. I rode over portions of James City, York, and Warwick counties. The James river lands are generally of a stiff clay, but grow lighter and more loamy as they recede from the river, until you come on to the ridge, which divides the small streams that empty it into York and James rivers—thence to the York river they change very little. The York river lands are not as stiff as those on the James river until you get below Yorktown, where the land is lower, flatter, and stiffer. The higher lands are considerably broken with deep ravines, particularly on the rivers; and from them the marls, which underlay the whole country, and with which I supplied you samples, are dug to be applied to the soil. This marl is frequently found at the surface in the sides of the ravines. In nearly all those ravines there are small streams of water issuing out, and often spreading over the whole bottom, which is the chief cause of the fall sickness, such as fever and ague, and bilious fever, which are no worse than at the boasted West, if as bad. These can be drained at a small expense.

Nearly three-fourths of the land from the Chickahominy to Hampton is in forest. The benefit of marling here has been surprising, especially on the farm of Mr. Nelson (to whom I had a letter of introduction), and at Yorktown, on the battle ground, which I have not time to describe, otherwise than to say that the plow and time have obliterated nearly all the evidences of the American parallels, while the British redoubts remain in a good state of preservation. Mr. N. politely showed the farms in his neighborhood. I saw a very striking effect of marl on these also. On one of these a field had been marled, leaving by accident a strip unmarled. The difference was perceptible as far as the grain could be seen.

The farm of Mr. Wynne, on James river, at the Grove wharf, is a good illustration of the effect of marling and clovering. Having a letter to him, and being kindly invited to partake of his generous hospitality for several days, I had during my rambles there a good opportunity of examining his farm and mode of cultivation. He is a very intelligent and gentlemanly man, and a very good practical farmer; and any one visiting that part of Virginia for a location, would do well to call and see him. People from all sections of Virginia daily passing, gives him an ample opportunity to become extensively acquainted in his State. He told me that he bought his farm six years ago, and it was thought to be very poor. He has 1,000 acres of land. The house is one of the finest specimens of the old Virginia style I saw in my rambles. It is 74 by 44 feet, two stories high, the stories 15 feet between joints, with wainscotted ceiling. It is built of brick, and more than a hundred years old, and still in a fine state of preservation. He said that when he bought the farm it would not produce more than 300 bushels of wheat a year, and by marling, clovering, and other improvement, his last year's crop reached 1,600 bushels, 80 acres averaging 16 bushels per acre. If he carries out his present system of improvement, he can double this yield in six years more. He cultivates on the three field system; corn, wheat, clover; sowing wheat after corn, and some on a clover ley, and then putting corn right after wheat. If land will improve under this system I think it must be good. Such a continued cropping might be exchanged for one like this with profit—1st, corn, 2d, oats, 3d, clover, 4th, wheat, 5th, 6th, and 7th, if you please, with clover and timothy, and keep more stock, and keep them better, for the cattle in Virginia are miserable enough. Thus they would make more manure, and consequently raise more grain; and the more manure there is applied, the more marl the land will bear. Southern Virginia owes an inestimable debt of gratitude to Mr. Ruffin for his work on calcareous manures; for marls were rarely applied, and scarcely known as a manure until after the appearance of his work. Mr. Wynne's farm is but an illustration of many others, and he assured me that he knew many farms which produced 10 bushels of wheat now, where they did one ten years ago.

Farms with improvements on them can be bought from $3 to $20 per acre through the whole peninsula, with perhaps few exceptions about Hampton and the lower part of York county; some few very rich farms are held higher; but I saw good farms off the rivers, and some on, that can be bought for $5, $8, and $10 per acre. Here, it is not more than 15 miles from one river to the other. At any place, oysters, fish, and fowl abound, of the finest quality. The south side of James river is much the same kind of land, except that it is sandier and thinner, and there is much heavy timber in Surrey, Isle of Wight, Nansemond, Princess Anne, the surface flat, and much of the two last slashy. There is some good land on the Nansemond and Elizabeth rivers. On the Nansemond and about Hampton, large quantities of melons, and potatoes, and other vegetables, are grown for the northern markets. The farms here are smaller and lands higher than the others I have named. There are tracts to be found on the rivers, which an enterprising man can pay for in the wood in a few years, by cutting wood and timber. The lands between the York and Rappahannock rivers, and so on through up to the Potomac, differ little in quality and price with the lands I have described. Gloucester county is considered one of the best in lower Virginia

Want of space compels me to cut my epistle short.

I might say much more in relation to means of improvement, and go more minutely into the character of some lands that I have merely alluded to; but I think from my own observation, reading and acquaintance with men who have travelled over those portions of the Union which I have not, that Eastern Virginia presents greater inducements to Northern men to emigrate there than any portion of the United States, and I should recommend any one wishing to change his location to at least look at it. I fear I shall tire your patience by my hurried epistle.

G. P. Lewis.

Huntington, L. I., Feb. 28, 1845.

CULTURE OF TOBACCO.

The growing of tobacco is becoming an important business in the valley of the Connecticut, and yields a better return to the farmer on rich land, than almost any other crop. This crop was greatly increased the last season, and I think I do not exaggerate, when I estimate the amount grown in the towns bordering on the Connecticut, between Hartford and Northampton, at from 1,500 to 2,000 tons. The price, the last season, for large growth, and in good condition, was eight cents per pound. We have two varieties—the narrow, and the broad leaf. The latter is the most productive, and sells in market much more readily than the former.

Soil Preparation and Sowing.—We select for our tobacco plants a rich, moist (but not wet) spot, and sow the seed as early in April as the ground can be prepared for it. Our beds are well manured, made mellow and fine, and the seed should be sowed at the rate of one table-spoonful to the square rod, before the earth gets dry; after this it is raked so that the dirt may stick close to the seed. It should not be covered, but let a man go on and tread the surface of the bed as hard as possible. The bed must be kept free from weeds. The plants should get leaves two or three inches long before being transplanted. They grow faster in the beds at first than in the field, and are less exposed to the cut worm.

Transplanting.—We commence transplanting the fore part of June, and often set out the plants as late as the 20th or 25th. The ground should be made mellow and level. The broad leaf plants should be set in the rows 2½ feet distant from each other, and the rows be 3 feet 4 inches apart. If it rains at the time of setting, we take the advantage of it, and get out as many as possible. If not, we make the hills, and pour in to each about half a pint of water, and follow immediately after and set the plants. They will live as well set in this way in sunshine as in the rain. The ground should be looked over two or three times afterward, and re-set the vacant plants.

After Culture.—As soon as the plants are well growing, we go through with the cultivator, and again fill up the vacant places. The crop should be hoed three or four times, without hilling the plants. When the green worms appear, they must be watched and killed, or they will in a great measure destroy the crop.

Topping.—Commence topping the tobacco when it is in the bloom, and manage to top as much as possible the first time going over, that it may all ripen at once. Leave about twenty leaves to the stalk, and make the field as even on the surface as possible. If you have late plants in consequence of re-setting, break them low, and they will grow faster and ripen sooner for it. The suckers should all be broken off and the plants kept clear of weeds till they are cut.

Cutting and Curing.—We should never cut more than can be hung the same day and next morning, while the dew is on. After cutting, it should lie and wilt on one side, then turn it and wilt the other; then throw it into heaps of six or eight plants each, and let it lie till carted to the sheds, where it is hung with cotton twine on poles twelve feet long, and about twenty plants on each side. It must hang till the stem of the leaf is thoroughly cured to the stalk. It is then taken down in a damp day (to prevent the leaves from crumbling), and stripped and tied in three small hands, keeping the broken and poor leaves by themselves. It is then packed, and pressed hard with the hands in a double row, with the butts out, and if not sufficiently cured in a few days, it must be shaken up and re-packed, to prevent heating. When fit for market it is bought in large quantities and pressed in boxes containing about four hundred pounds each, and sent to the seaports and shipped to foreign countries.

Value of Poudrette.—I used one barrel of poudrette from the Lodi Manufactory in your city, sold by Mr. Dey, on my plants while on the bed, leaving a small piece without it. The effect was astonishing. The plants at the time of setting were twice as large where the poudrette was used as where it was not, and they were not as much attacked by the worms, which is an important consideration. I set the last season about two and a half acres in tobacco, which produced 5,100 lbs. I sold it for $408.

P.

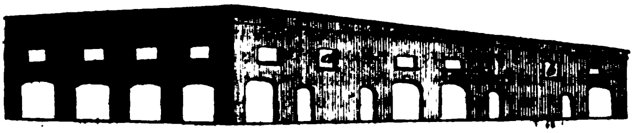
South Hadley Falls, Mass., March 3, 1845.

We had the pleasure of visiting our intelligent correspondent above, last year, and saw his tobacco crop growing. We recently met with an enterprising farmer from Windsor, who estimated the crop grown the past year in the valley of the Connecticut and its vicinity, at 5,000,000 lbs. He said he could get from 12 to 16 cents per lb. for his; and although it was used for a different purpose, he did not know why it was not as good as the Cuba, which sells from 25 to 35 cents per lb. Prime tobacco-land rents high at present in the valley of the Connecticut—from $25 to $50 per acre per annum. A rich, friable loamy clay is considered the best soil for this crop, which must be highly manured and deep and well worked. We think it ought to be subsoil-plowed, and that guano as well as poudrette would be an excellent manure for it. The latter is the most lasting, and is said to keep off the fly. Coarse barn-yard manure makes too rank a growth of stalk and leaf, and injures the quality of the tobacco; whereas, poudrette, guano, and other fine and highly concentrated manures, would add to its aromatic flavor. We should be glad to see carefully conducted experiments made the present season with these manures, on the tobacco crop. The different kinds might be tried side by side on separate rows, with a view of testing which [illegible] particular locality and kind of soil. We should be pleased to learn whether the culture of the finest Cuba tobacco has ever been attempted in New England. This is frequently worth from 50 cents to $1 per lb.

STABLES OF MR. GIBBONS.

THE most complete stables which we have seen in the United States, or indeed anywhere else, when we take into consideration their cost, comfort, and convenience, are in Madison, New Jersey, at the Forest—the beautiful estate of William Gibbons, Esq.; plans of which he has kindly permitted us to take to embellish the American edition of the Stable Economy.

The stables stand upon the edge of a piece of broad table-land, gently declining to the south. The foundation, and walls of the lower story, are of stone; the walls of the upper stories are of brick. The whole building is strong and massive, and finished in the most thorough manner



ELEVATION.—FIG. 29.

Fig. 29 is a perspective view of the elevation of the stables on the north or upper side. They are two stories high on the front, and three stories on the lower or south side. The building is 90 feet long, and 60 wide, and 24 high on this front. The architecture is neat and appropriate. There is a good Macadam carriage-way in front, on the north side; *a* and *b* are large windows, alongside of which the hay-carts drive to unload.

Fig. 30 is the basement story, laid up of thick stone walls.

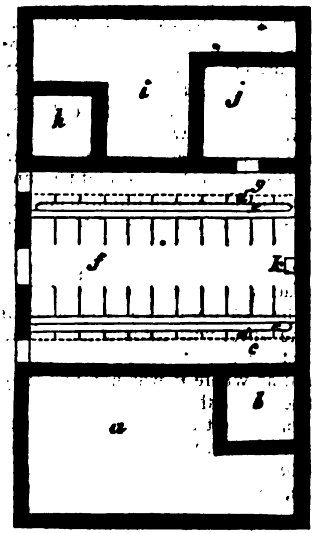
a, Solid earth. *b*, *h*, Cisterns 12 feet square, and 7 deep.

c, *g*, Passage-ways from which the cattle are fed under the water-troughs, *e*, *e*.

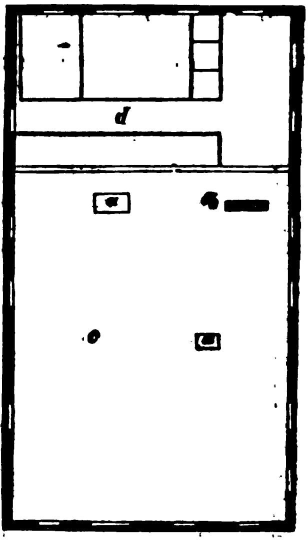
d, *d*, Racks for receiving hay from above.

e, *e*, Water-troughs running along the whole front of the cattle-stalls.

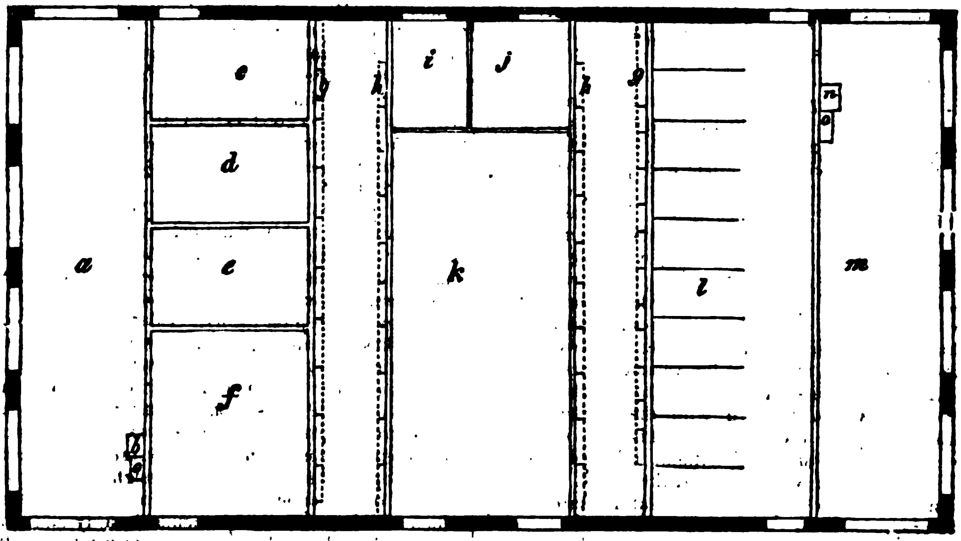
f, Passage-way for the cattle, with rows of open stalls on each side, 4 feet 3 inches wide.



BASEMENT STORY.—FIG. 30.



THIRD STORY OR LOFT.—FIG. 31



SECOND STORY.—FIG. 32.

i, Solid earth.

j, Cellar for roots, 16 feet square.

k, Pump which draws water from the cistern, and delivers it into the troughs, *e*, *e*.

Fig. 31 is the third story or loft; *a*, *a*, openings in the floor to put down hay for the stock.

b, Stairway.

c, Hay-loft.

d, Granary, partitioned into separate divisions, as designated by the line, for different kinds of grain.

Fig. 32 is the second story, engraved on a larger scale than Figs. 30 and 31. It is on a level with the broad table-land, north side, in front of Fig. 29.

a, *m*, Sheds 50 feet long and 13 feet wide. The loft or third story, Fig. 31, forms their ceiling or roof, by projecting over them at each end. The open spaces along the outside line are arches; the black spots are brick walls to support the ends of the upper story. These sheds are very convenient for taking out the horses to dress, and for other purposes.

b, *n*, Pumps.

c, *d*, *e*, *f*, Box-stalls for horses, 14 feet 6 inches deep, by 9 feet 8 inches, 9 feet 7 inches, 9 feet 6 inches, and 19 feet wide.

g, *g*, Rows of feed-boxes for the horses.

h, *h*, Rows of openings through which to put down hay into the racks for the cattle in the basement story (see *d*, *d*, in Fig. 30.)

i, Farmer's room for utensils, 11 by 7 feet 6 inches.

j, Harness-room; 11 by 12 feet 6 inches. *k*, Coach-room.

l, Horse-stalls 4 feet 9 inches, by 14 feet 6 inches.

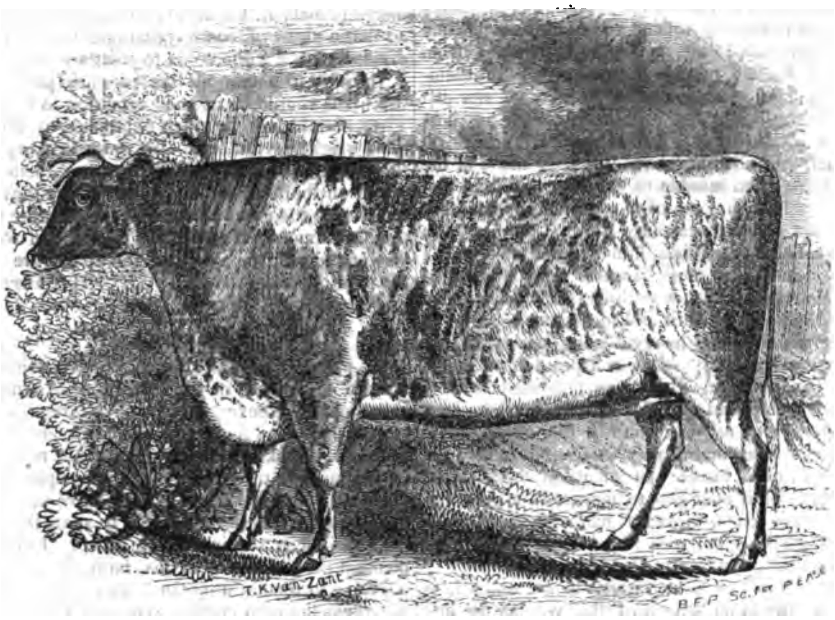
o, *o*, Water-troughs.

Mr. Gibbons has a very fine stud of thorough-bred horses, among which are the famous Bonnets-of-Blue, Fashion, and Mariner. His Durham cattle are superb, and all his farm arrangements and farm buildings are in excellent style.

For a full description of Mr. Gibbons' farm, see Vol. 3, page 130, of the Agriculturist.

We have been obligingly permitted to use the above cuts, and copy the article illustrating them, from the Stable Economy, just published, by Messrs. Appleton & Co., of this city, and edited by ourselves.

STOCK OF MR. PRENTICE.


T. K. van Zant
B. F. P. Sc. for PENN

DURHAM HEIFER, ESTERVILLE.—FIG. 33.

ESTERVILLE is the property of F. P. Prentice, Esq., of Mount Hope, near Albany, New York. She was got in England, by Daniel O'Connell (3557); dam, Esterville (imported by Mr. Prentice), by Sir Alfred (6469); g. d., Amethyst, by Prince of Northumberland (4826); g. g. d. Amazon, by Crusader, (934); g. g. g. d. Amazon, by Sultan (1485); g. g. g. g. d. Belona, by Mars (411); g. g. g. g. g. d. Rolla, by North Star (458); own brother to Comet, sold for £1000. Sir Alfred was sold, in 1840, to the King of the French.

Esterville took the second premium in her class (Nell, another heifer belonging to Mr. P., taking the first), at the State Agricultural Society show at Poughkeepsie, last fall, and was greatly admired by all good judges present. The portrait above is a truthful likeness of her, and is a fair sample of Mr. Prentice's herd. This now consists of about fifty head, and for choice breeding, superior dairy qualities, and all that constitutes fine improved stock, it is not excelled by any herd in this country. As an instance of the value of Mr. P's cows, we are assured that several have given from 26 to 31 quarts of milk per day, and made corresponding large quantities of butter per week. Such animals cannot be too highly valued. We have often had the gratification of personally inspecting his herd, and speak of it from our own knowledge. For more particular descriptions we refer to our first volume.

It will be seen by an advertisement in our present No., that the **Entire Herd** is offered for sale, on Wednesday the 25th of June next. Mr. Prentice is a gentleman of high honor and the strictest integrity, and whatever he says in his advertisement may be relied upon. The sale will afford such an opportunity for stock-breeders to possess themselves of good animals, at moderate prices, as has never yet been presented in the United States; and we earnestly entreat all who have any desire for the improvement of their cattle, to be there and make a bid. As we design being present, we respectfully offer our services to such of our friends as may find it inconvenient to attend to bid for themselves. Any instructions they may please to give as to choice of animals, and prices at which to purchase, they may depend upon being faithfully executed.

DIFFERENT QUALITIES OF HONEY.

Among all the treatises on the subject of bees that have come under my notice, I do not recollect one in which the different varieties and qualities of honey have been particularly noticed and described. It is a matter of surprise to me, as honey is obtained from so great a variety of flowers, possessing in themselves properties so various, that if there be any difference, there should not be as many kinds as there are plants producing it. But this does not seem to be the fact. In all that I have yet seen made at the north, I have been unable to discover but four distinct kinds; though some of them differ considerably in quality in different seasons.

1st Quality.—The first honey collected—and I think the richest and most valuable sort, is obtained in April and May, in this latitude (42°), principally from the blossoms of fruit and forest trees. It is of an amber color—very heavy—being nearly of the consistence of tar, and possesses a peculiar aromatic flavor. The comb in which it is deposited is of a light straw color, and is thicker, that is, there is a greater proportion of wax than in the other kinds. It is collected in comparatively small quantities, or it is deposited in the lower apartments of the hive, so that but little of it ever gets to market in a pure virgin state. We once, however, had a globe containing nearly 20 lbs. filled with it (taken of course from one hive), while residing in Connecticut.

2d Quality.—The next variety to be noticed, is collected at the same season of the year as the first mentioned, and is deposited in the same kind of comb, has a similar though rather higher flavor, and is not only as thick, but nearly as black as tar; but it is obtained in still smaller quantities than the first.

3d Quality.—The next in order is taken in June and July. This is always of less specific gravity than the two former, though it differs more in this respect than any other kind in different seasons. Sometimes it is so thin and watery as to ferment and become sour when it runs from the cells; and even in such cells as are uncapped. It is destitute of the rich flavor of the early made kinds, but looks better, being almost colorless, and is in thinner, whiter comb, and on account of its fine appearance brings a better price in market. It is indeed preferred by some for its taste, while others consider it the most inferior of all. This is the kind so well known as white-clover honey, and is doubtless principally obtained from that plant.

4th Quality.—The next and last to be described, is made later in the season from buckwheat. Of this there is no doubt, and one who keeps bees need not be told when the fields of this grain are in blossom, though he be totally blind, provided his olfactories are unimpaired, on going within a few rods of his apiary. The strong odor that is emitted from the hives reveals the fact to a certainty, though there be none growing within the distance of a mile. The honey, however, loses this rank smell in a great degree in a few weeks, and is then preferred by many to the white-clover. Its color is a dark brown; but the comb containing it is the whitest of all, and is so very thin, that in some cases where the cells are deep, a piece containing a pound of honey, would not I think, weigh more than one fourth of an ounce, that is, not more than one sixty-fourth of the whole is waste. This variety is generally heavier than the white-clover, but less so than that from fruit trees.

The different kinds of honey are seldom if ever mixed at all in the cells; nor are the cells filled indiscriminately in the sheet; but each kind is by itself, so that a sheet of comb containing two sorts, can be divided with a knife so as to separate the kinds.

In order to obtain all the varieties pure in boxes, the hives should be in good condition in early spring. They should not be much exhausted of honey, and well stocked with bees. In order to keep them in this condition, it is better to remove them to some warm out-building, or dry cellar, where they will not experience the great changes of temperature to which they are exposed if left in the open air in winter. If well managed, the avails of the apiary are a profitable item of farm produce. H. Carpenter.

Poughkeepsie, Jan. 16, 1845.

A CORN PLOW.

In passing through Butler County, Ohio, on my way to Kentucky, in the month of August last, I called on Dr. Keever, an extensive farmer as well as skilful physician and surgeon, with a very extensive practice. I asked him to write out the result of some of his farming operations for your paper, which he promised he would; but as they have not appeared, I suppose he has not been able to spare the time from the multiplicity of his cares to do so. I saw an implement of husbandry at his farm of too much importance to remain unnoticed, as it ought to be in use wherever the corn crop is extensively cultivated. It was a plow with two shares, with a pole connected to the frames in the centre, like that of a wagon, worked with two horses. The shares were so constructed that they could be shifted either way, thus throwing the dirt to or from the corn, at pleasure, o both sides of the row at the same time. It did the work to great perfection, and twice as fast as a single plow would have done it. I hope Dr. K. will find time to send you a drawing of it, and give a description of some other curious inventions, as well as of that of his farming in general. He is an intelligent and ingenious man, and ought to be willing to let others share with him, inasmuch as nature has done more for him than the great majority of us less gifted

A Traveller.

Agriculture in Scotland.—No. 6.

Electricity.—It has been customary to allege, that the farmers of all countries, as a class, are the very slowest in seizing upon new methods, and the most reluctant to leave the cherished ways of their forefathers. That there is much truth in this, as to our own country, I must admit; for even now rises up before me a long array of crooked fences (a) of stones seamed by the plows and harrows of successive generations; of outlandish and awkward implements; of barn yards on the summits of hills; of razor-backed pigs; of skeleton cows, and a thousand other things which your imagination will readily suggest. These have been a reproach to us, and richly have we deserved it. But I trust that better days are commencing, even in our worst districts.

On this side of the water, the farmers are fast losing sight of their *grandfathers* even, and never think of quoting more remote ancestry as a precedent. They are seriously contemplating the *total abolition of fences* (b), and intend to have the whole surface of the island one great net-work of drains. Not content with collecting every ounce and every drop of manure here, they are scouring sea and land for additional supplies.

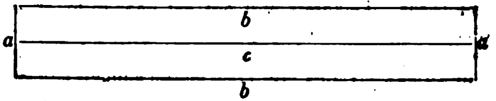
At their agricultural shows, the very earth shakes under the ponderous beasts that appear, while the clod-crushers, the grubbers, and the subsoil plows, bristling with arms, and hooks, and teeth, fill the beholder with amazement and awe.

A large proportion of the farmers, in addition to the fatting of these huge animals, and the management of these formidable implements, are turning their attention to scientific knowledge, and already have derived incalculable benefits; the very boys are becoming learned on the subject, and many a little fellow of twelve or fourteen, would drive a whole regiment of inveterate *ancients* back to their inaccessible fastnesses among the usages of antiquity. But there are still others, who having fairly cut away from their old prejudices, are shooting on in advance at a prodigious rate, and hanging out beacons for us that we may follow their adventurous course. Some of them are making truly astonishing developments, which bid fair, according to their enthusiastic visions, to revolutionize our whole system. Among the recent discoveries is one which I deem it proper to touch upon, as I wish to keep you fully informed as to the more important movements of the day.

Application of Electricity to Vegetation.—It seems that we have all been in the dark on the subject of electricity, and have never had more than a glimpse of the sun which is now to illumine us. It is true that some isolated and trifling attempts to bring it into the service of agriculture have been made, but not of a nature to promise much practical benefit. I notice that Mr. Ross, some time since, presented to the Farmers' Club of New York, a potato grown under the influence of an electrical current; but this potato, however superior in size to others grown alongside of it without the application of electricity, was solitary and alone, and would not be thought much of by the gentlemen who have now taken the matter up here.

Their mode of operation is to measure off an oblong space of ground, and running through the middle *exactly north and south*, to suspend an iron wire upon posts, so as to hang about 12 feet from the surface; this communicates at each end with a wire laid under the ground along each side of the plot, at the depth of 2 or 3 inches, thus—

FIG. 34.



Explanation of Plan of Experimental Plot.

a, a, Wire buried 2 or 3 inches deep, and each piece 12 yards long.

b, b, Wire buried 2 or 3 inches deep, joined to the ends of *a, a,* and 55 yards long each. These should run exactly north and south.

c, Line of wire 55 yards long, running north and south, equidistant from *b, b.* This is suspended on the ends of two posts, 12 feet from the surface of the ground, and runs down them communicating with the buried wire *a, a.*

The whole cost of this here is 6*s.* ($1.40). As the area increases the cost rapidly diminishes.

Without entering into the scientific reasoning employed, it is sufficient at present to say that these wires, acting in harmonious concert, create a constant current of electricity, and always have a stock on hand for the crops growing on the favored plot. It is said that the points of green growing vegetables are peculiarly attractive to this subtle fluid. As soon, therefore, as the young shoots emerge from the earth, they lose no time in pointing at the wires, the electricity forthwith shoots down, and the plants shooting up, they grow tall, become excessively green, and have altogether such a flourishing appearance, that everything else in the neighborhood looks sickly in comparison. It is unfortunate that we as yet have very few facts to satisfy the incredulous of the truth of these things, as all of the extended experiments—only two or three in number—have been made by one gentleman, Mr. Forster, in Morayshire. On a *wired* plot of 25 square rods, he raised an enormous crop of barley, being at the rate of 104 bushels per acre, and an unheard of abundance of straw, equal to 9,390 lbs. per acre. The grain was larger, the barley was better, the straw was brighter and sweeter, than any on record. The most obstinate must, however, be convinced, when they learn that *electro-cultural* societies are forming on a large scale. But a few days since, I saw a circular giving notice of a species of electro-cultural convention, at Tring, between London and Birmingham.

It is to be supposed that under this new system of feeding, our crops will surpass the quantities of our wildest dreams; twenty years hence, we shall wonder how we ever considered 80 bushels of wheat to the acre a large crop, or how we ever looked upon a turnip weighing 15 lbs. as respectable. Mr. Ross's potato no doubt felt lonely; had there been others near to encourage it, it would unquestionably have been 7 inches in diameter, rather than 7 in circumference. When the people of this country become fully imbued with these ideas, we may expect to see the whole island studded over with posts and traversed by iron wires; and if Ireland does not follow the example, she will lose her name of the Emerald Isle, being entirely eclipsed by the superior verdure of England.

America will not fail to follow so laudable an example, and there will shortly be as great a strife for electricity as there is now for guano. Deeds of property will include the right to collect it, and lawsuits will contest the right of taking it from rivers and lakes. Lecturers will not get enough to show their classes without paying heavily for it. We shall have no more thunder-storms, as the electricity will all be converted into food before enough can get together to make a flash of lightning; even a black cat's back will cease to give forth sparks when stroked the wrong way, in the dark! (*c*)

I fear that this new doctrine will not find much favor in New England, and that the farmers in my own State, the Land of Steady Habits, will look especially shy at it. Perhaps, after all, it is as well to wait for more light. I might recommend to them the enclosure of small experimental plots in their gardens, were I not morally certain that on the very next washing day, their wives and daughters would seize upon the posts for the extension of their clothes lines, and so defeat the efforts of science.

It was at first expected that manure would be of no further use, but it is now said that its action will be much more powerful with the help of this new ally. That I may not seem to speak in too trifling a manner on this subject, I must add that there is no doubt whatever that these gentlemen are right in assuming the existence of electrical currents. That they do exist, is beautifully proven by the system of telegraphic communication established in late years, transmitting intelligence with the rapidity of thought by the employment of this invisible agent.

An ingenious clock-maker in this city has applied it to clocks. He has two wires, one going directly into the earth, and the other communicating with the gas pipe, which also enters the earth sooner or later, in its course, thus completing a galvanic circuit. The points of the wires are brought upon opposite sides of the pendulum, and being positively and negatively electrified, the alternate attraction and repulsion impart the requisite motion to the pendulum. This fact alone demonstrates the existence of quite powerful currents of the electric fluid. Whether it may be profitably employed in practical agriculture is another question, upon which, though holding ourselves open to conviction in future, we may well be excused for entertaining some doubts at present. (*d*)

JOHN P. NORTON.

Edinburgh, Feb. 1, 1845.

(*a*) The hated, detested things, which we will do our best to have abolished within twenty years.

(*b*) We are glad to have this information so soon at hand, to corroborate what we told our readers in the February Number of the Agriculturist. It will be seen from the date of his letter, that Mr. Norton could not have known that we had just written upon this subject.

(*c*) Our correspondent is somewhat facetious upon the subject of electricity applied to growing vegetation—half doubting, and rather more than half believing, we fancy. To give our readers, therefore, an idea of the immense quantity of lightning in the clouds, and to convince them that the subject is not a chimerical one, we will give an ingenious calculation made by M. Arago, of the quantity of lightning drawn from the clouds by means of paratonnerres. He states, that in an ordinary storm, a hundred sparks would be transmitted through a small breach of continuity in the conductor, of which the combined effect would be sufficient to kill a man, and these would pass in ten seconds. As much lightning would therefore pass per minute as would destroy six men, and as much per hour as would kill 360 men. He calculates, in this way, that the paratonnerres erected by Beccaria, on the palace of Valentino, combined with the effect of the pointed parts of the roof, must take as much lightning per hour from the clouds as would be sufficient to destroy 3,000 men.

(*d*) Public attention was called to the effect of atmospheric electricity on vegetation as early as 1819, by Decandolle and Sprengel, in their work on the Elements of the Philosophy of Plants, and has been more or less experimented on ever since by the philosophers of Europe. We gave this letter of Mr. Norton's to Wm. A. Seeley, Esq., to be read before the last meeting of the Agricultural Association in this city. To this he added an elegant and learned discourse on electricity, which will hereafter appear in the Society's Transactions. Several gentlemen in this vicinity have already planted and hung their wires, with a view of making a series of experiments on this highly interesting subject the present year.

MAKING DRAINS.

THE plan here is to cut with the common spade, a ditch 24 inches wide and 14 to 18 inches deep, nearly straight at the sides; then with a small spade, 6 inches wide, a vault is cut one spit deep in the centre of the bottom. If the clay is tough, small sassafras or mulberry saplings, about six or eight inches in diameter, are procured and quartered, after being cut or sawed in pieces 20 inches long; three of these are laid across the vault, at the two ends and middle of each plank or puncheon, of pine or oak; the plank is then laid length-wise on these; pine tops or tufts of grass are laid along the edges, to keep out the dirt that might fall through the open spaces; after this the dirt is pulled in with hoes, &c. The underdrains thus made appear to do well so far. If there is sand or pipeclay, plank one inch thick and six inches wide, are set on edge at each side of the vaults to keep them from caving in.

T. CLAGWELL.

Snow Creek, N. C.

SLAUGHTERING SHEEP FOR PELTS AND TALLOW.

I observed in a recent number of a newspaper, published in the State of Ohio, that 30,000 sheep's pelts had been shipped from the port of Cleaveland (I think it was) during the past season. Is this an indication of right practice on the part of Ohio farmers, or rather does it not show a very bad state of things? If, as is confidently asserted, England alone purchases from her colonies and from other countries 50,000,000 pounds of wool every year, to supply her woollen manufactories, and the demand there is constantly increasing; and if we, at present, raise only five-eighths of the quantity required for our own consumption, which is yearly increasing also, surely this is no time, nor is ours a country in which to slaughter sheep for their pelts and tallow. Even supposing they were coarse, long-wooled sheep, it would have been far better to have purchased good

Merino bucks to cross with those flocks, than to have disposed of them as they have been disposed of.

Depend on it those sheep will be missed during the coming season. The wool business is destined to increase in this country at a rapid rate, and to an enormous extent. The demand for wool, here and abroad, will be second only to the demand for cotton as regards the number of pounds, and I hesitate not to say that in value, in dollars and cents, the wool *crop* will, ere many years, surpass the cotton crop. All things considered, we can raise wool in this country, and put it into our own and foreign markets, cheaper than it can be done by any other people on the face of the earth; and other nations must and will have it of us, because they cannot afford to raise it on their high priced lands as cheaply as we can on our Western prairies. If they will not take it of us, they must be content to be driven out of every market by the superior cheapness of our own manufactured article. Nay, our opinion is, that it will not be long ere we shall see some of those far-famed Saxony flocks turning their noses westward, to join their brethren already there. We can raise wool on our prairies at prices which even we ourselves at present hardly dream of. A finer soil, a sweeter feed, and a better air for them cannot be found; and raising wool there is, at present, and for years will be, the best business the farmer can follow. We have already gone at it; let us keep at it, and hear no more of slaughtering sheep for their pelts and tallow. T.

PENNING HOGS.—CORN AND COB MEAL.—MANURE.—GROWING TURNIPS.—A valued correspondent thus writes us from Silver Bluff, South Carolina: "I have a large stock of hogs with which I have not heretofore taken more pains than was barely necessary to raise my own meat. I am now preparing to pen all of them, since I find that the same amount of ground corn and cob-meal fed to them in their range, will enable me to keep them fat in pens. This I have *proved on trial*. Penned, they make a vast quantity of manure, which is valuable for crops of all kinds grown here. I have never been able to grow turnips. I feel the want of them for my hogs at this season, and think with the aid of bone-dust and a little more pains, that I can produce them."

We have answered all our correspondent's inquiries by letter, and hope to get a bone mill and all other things at a reasonable rate. We are glad to see him so judicious in his improvements.

TO MAKE WHALE-OIL SOAP FOR WASHING FRUIT TREES.—Take 18 lbs. potash and 30 lbs. of foot oil and put in a barrel. Every other day pour upon the mixture 12 quarts boiling water, stirring it every day for a few minutes. When the barrel is filled up with water the soap will be fit for use. Now put about 4 gallons of soap into a hogshead of 150 gallons of water, and apply the suds to the trees by aid of the garden engine. This application is one of the best destroyers of insects known, and at the same time it is an excellent stimulant to the growth of all vegetation.

TO KILL CROWS.—Steep a quantity of corn in arsenic, and place it in different parts of the planted field. Crows and blackbirds will eat it with avidity, which soon causes their death.

WESTERN CALENDAR FOR APRIL.

THIS is the busy month of the year. The residue of the corn crop should be planted as early in the month as practicable. Hemp may be sown throughout this month, but it would be better to complete the operation by the twentieth. If the sowing were commenced the middle of March, and finished by the 20th of April, it would be in good time There would then be near four weeks from the *ripening* of the fruit and last sowing, thus allowing full time for cutting. It must be observed that early sowed hemp will not ripen in as short a time as that which is sowed later; and, therefore, there must intervene a longer time between the first and last sowing, than between the time of commencing and finishing cutting. Hemp should be cut as soon as possible after it begins to ripen, as it injures by standing only a few days, after it is fully ripe, which may be known by the male plants beginning to die. Hemp for seed should be planted early in this month. It requires very rich ground to make it produce well. That which has been manured answers best. It should be finely pulverized by plowing and harrowing. If plowed the preceding fall, so as to have the benefit of the winter freezing, it will be the better prepared.

Plant sweet potatoes about the 20th of this month, having previously sprouted them in a hot-bed, made with stable manure. Gardening generally should be attended to early in this month; but beans should not be planted before the fifteenth, in latitude 39°, unless you are prepared to protect them from frost, by covering them with boards. In that case they may be planted early in the month. If the thermometer (Farenheit) falls to 45° by 9 o'clock at night, the beans should be covered, as experience proves that they will generally be injured by frost, when the thermometer ranges below forty-five, at the hour mentioned. Barley may also be sowed early in this month. Spring wheat (if any should be cultivated) should be sowed early in March, or late in February, if the ground is in suitable condition.

The crop being now pitched, most of the spring work done up, and a little leisure afforded, the sheep should be washed, late in the month, and sheared. Lambs should come in April, especially of the Merino breed, which are not sufficiently hardy to bear the cold winds and frosty weather of March. Besides, the ewes will now have good pasture, and will nurse their lambs so well that scarcely any of them will be lost. Sows may litter in this and the previous month. It is best that pigs should not come too much together, unless you have separate lots for the sows. The garden should be put in complete order, the walks dressed, and every part of it cleared of weeds, preparatory to working the corn. If this should have been planted as early as the 25th of March (early planting generally succeeds best, as not being so liable to be injured by drought), it will require plowing, during this month, and the plows should be kept running, while the sheep are being sheared, and the garden put in order. The corn should have at least one plowing before the hoes need to follow. It would be better to run first a single furrow, opposite to the way it was planted, then two furrows, with the bar next to the corn, when the hoes should follow. Let the middles be split a few days after. A. BEATTY.

Prospect Hill, Ky.

European Agriculture—No. 2.

My last letter from Nismes being written after a very hurried journey through France, at a comparatively uninteresting season of the year, conveyed but little information respecting the state either of horticulture or agriculture in that country.

Culture of the Olive.—The section of level land lying between Nismes and Montpelier is cultivated chiefly with olives, and the Frontignac and several other fine varieties of grapes. The olives had just been gathered and pressed. This tree does not bear until it is ten years of age, but is very long lived. I saw some at this place which are known to have existed in the time of Cæsar. Surrounded by an abundance of food as we are in America, it is difficult for us to estimate the very great importance of the olive to the poorer classes in France. Requiring no cultivation, and no further labor than to gather the fruit and express the oil, it can be afforded at a cheap rate. This oil with coarse bread constitutes almost the entire food of the lower classes of France and Italy. They have also some cheap kinds of light wine, at a few sous per bottle, which is much used.

Culture of Grapes.—The cultivation of the grape in Europe is a subject in which I feel much interested, and on which I have already obtained some information. After being accustomed to the extensive glass vineries of Boston, Philadelphia, and Flushing, I was forcibly impressed with the great simplicity of its culture both in France and Italy. In some instances planted in sandy or gravelly soil, in which scarcely anything else would grow, without stake or trellis to support them, and consisting of two branches, each pruned down to three buds, they are made to produce some of the finest fruit in the country. In other instances they are tied to stakes and trellises, and moderately manured. It is very desirable to obtain some varieties of these delicious European grapes, that will succeed well with us in the open air. That such can be obtained, I have no doubt; for they are found flourishing upon some of the most exposed points of the Alps, and where there is a foot or more of snow during the winter. An American gentleman of distinguished literary merit, and some time a resident of Italy, has been making a collection of these vines, and through his kindness I hope to send some of them to Flushing this spring in time for planting out. By another year we shall, in this case, be able to test them fully, and to aid, perhaps, in introducing to the lovers of good fruit in America some new and very superior hardy varieties of the grape. I much regret that my visit here is not during the vintage; at that season I should have full opportunity of seeing the different varieties, and testing their respective merits.

Dr. Delile.—At Montpelier I had the pleasure of seeing Dr. Delile; he called on me only a short time before I left, and I had therefore but a limited time for conversation with him. He is a very interesting man of about fifty, and is at the head of the Medical School and director of the Botanic Garden, at Montpellier, one of the best establishments of the kind in France. He is enthusiastically attached to horticulture, and gave me much valuable information respecting its condition in France and Belgium. His botanic garden has in it one of the only two trees of the *Gingko biloba* in Europe, that have borne fruit.

Route to Rome.—From Montpellier we went via Cette to Marseilles, and thence, via Genoa and Leghorn, to Civita Vecchia, the seaport of Rome. At Genoa, the city of palaces, I visited one or two fine gardens. The Pescari palace has some fine grottoes and fountains, good statuary, very large orange trees and camellias in the open ground, and in bloom. There was also a conservatory and pineries.

Villas and Gardens of Rome.—It has taken me some days to examine in detail the most important villas near Rome. The style of gardening in all of them is strictly artificial, and where consistently carried out is strikingly novel and beautiful. The Villa Pamphilia is the most elegant one near Rome. It is situated on a farm four or five miles in circuit, a large part of which is laid out in drives, walks, and terraces—in one place bordered with a large extent of beautiful turf, and in others with groves of large trees of the cypress, the cork, oak, and the stone pine; the conical thick foliage of the former, contrasting finely with the flat, close top and picturesque appearance of the latter. There were also long hedges of tree-box and laurel, 12 or 15 feet high, entirely impenetrable and perfectly flat on the top and sides; beautifully close hedges of our common monthly rose, well trimmed and in bloom. All the grounds were studded with fountains, grottoes, and statues. A parterre graced the front of the house, and a smal. forcing house was placed on one side. But the most beautiful things of all, and the effect of which it is impossible to describe, were the long arbors of oranges and lemons, the rich glossy foliage covering the whole outside, and the bright yellow fruit hanging in clusters within; while on the ground beneath were camellias, ericas, and other exotic plants. This villa gave me a very good idea of the Italian style of landscape gardening, and was beautiful beyond description. Prince Torlonia, a rich banker, has been recently planting a villa in the English style of landscape gardening, and has politely sent me a card to visit it, which I shall do to-morrow.

Tivoli.—We have just returned from Tivoli in the mountains, interesting from its beautiful cascades and scenery, and for the ruins of a palace of Adrian, which was immense, covering a space one mile and a half in circuit. Tivoli is a charming spot, with pure mountain air and scenery not easily surpassed.

Domestic Stock.—They have good cattle here, but none that will compare with the English. Buffaloes are used in the campagna, and the oxen are often handsome, with horns sometimes three feet in length. The cows are small, and much like our native cows in form. It is amusing to see the peasants milking them from between the legs *behind!* where a single kick will send milker and milk both topsy-turvy! Besides these, they use the milk of goats and asses. There is a milk establishment opposite my window, and the donkeys *bray* lustily every morning, by way of reveille. Their milk is said to be particularly rich. The old Roman breed of horses is still kept up, and I have seen uniformly better horses here than in any other city. They are not large; are of a glossy black, well formed, with thick mane, and a tail sweeping the ground. Agriculture in Italy is a century behind the age. For a plow they use a narrow triangular piece of plank, with a stake put on one end for a handle, and the oxen draw it over rather than through the soil, by their horns.

Rome, Feb. 14, 1845. S. B. Parsons.

Ladies' Department.

FOR FARMERS' DAUGHTERS.

THE Boys' Department of your excellent periodical pleases me so much, that I should like to induce you to give a column to the girls upon the same plan; and if you are disposed to act upon this suggestion, I will occasionally furnish a few hints on subjects which may be useful to that interesting portion of our community—the farmer's younger daughters.

It is true, much that engages the attention of boys, can be pursued with great advantage by the girls—and what brother can, or would refuse to let his sisters help him to take care of the chickens, or gather the nuts, aye, and to share the profits as well as the pleasure? Yet, as many of their pursuits are altogether unsuitable for girls, so there are many which the female members of a family must take exclusively to themselves; and of these, a portion is necessarily left for the young ones, as being less laborious, though perhaps not of less importance than the weighty cares which occupy the time of their mother and elder sisters.

One of the earliest lessons to be impressed upon the minds of American daughters is, that nothing they are ever called upon to do in their father's house, can degrade them in the estimation of good or thinking people; and if their education has led any to form a different opinion, it has been conducted upon false principles. An American woman should blush at being suspected of feeling ashamed to be useful, or of doing her duty in that state of life unto which it has pleased God to call her.

Children love to run after their mother, and by observation, and being allowed *as a favor* to help, they early learn most of the laborious duties which, as they grow older, they are to share with them. If you will allow me to point out others which may exercise their thinking powers, or improve their mechanical skill, and perhaps lead them to love reading, and give habits of patient labor, which last is of primary importance to all who wish to lead useful lives—I will try what I can do for the improvement and amusement of country girls.

Taking Care of Eggs.—Spring has now come, and if the boys have taken good care of the hens during the cold weather, there will soon be plenty of eggs to look after. No doubt the boys will be glad enough to collect them, to select those which are to be put under the hens, and see that the hen-house is white-washed inside, and the nests in the nicest order—there is some fun in all that—but the girls must take care of those which are to be sold, or kept for family use. They will do very well in baskets for a week or two; but they can be preserved perfectly good for many months if properly attended to when fresh.

Preserving Eggs.—Some years ago I visited a friend who lived upon a large farm near the northern boundary of Pennsylvania, and as it was late in the autumn, expressed surprise at the liberal supply of eggs served up at every meal in cakes, puddings, &c. The lady told me it was all due to the *little girls!* As soon as the hens began to lay in the spring, they gathered the eggs, and covered each one with a thick coating of lard or other soft grease, and then laid them, with the small end downwards, in regular piles on the cellar floor; or packed them in earthen jars, which were then filled with melted fat (*not hot*), this kept out the air; and these always afforded plenty for use during the whole year, besides those taken fresh from the nests, and sent to market. This grease or lard can be purified afterwards so as to answer for soap, by washing in hot water, and straining through a cloth, then put away to cool. Packed in this way, I have known eggs sent to China, and have been assured by those who took them, that they were as good when they reached Canton, as when they left New York. Quite too fresh for the subjects of the "Brother of the Moon," the mighty ruler of the Celestial Empire, who never think an egg fit to eat until it has smell enough to disgust a school-boy. Another way of keeping eggs is, to pack in jars and pour lime water over them, which keeps the air out, and does not injure them; for everybody knows that eggshells are composed of lime. I know a lady who allowed her children to build a wall of eggs against the cellar wall, by placing them in a bed of slacked lime, kept in its place by a board in front and one at each end, which were taken away when the wall was finished; in this way they kept perfectly well for several months. But behold! when they wanted to use the eggs, they found the lime had hardened, and was so incorporated with the shells, that they were obliged to break the lime with a hatchet, which demolished the wall and eggs at the same time!

Culture of Flowers.—The cultivation of flowers is universally acknowledged to give a degree of refinement to the mind and manners, that many of our farmers' wives and daughters feel, and regret the want of—therefore the children should be allowed a place for these loveliest gifts of God to man. None can feel like the farmer, the force of Sir Isaac Newton's beautiful aphorism, "The fruits are God's bounty, the flowers but his smiles"—and I should like to teach the girls some of the important properties and uses of plants, as well as their botanical names; for the more they study the works of their bountiful Creator, the better they will love Him, and the happier they will be. This will be the work of some future day; at present they must prepare for gardening by collecting seeds; then make an alphabetical list of the names, numbered regularly from the beginning—get labels of any soft wood, neatly cut and painted white, on which write the numbers while the paint is wet; and when the seeds are sown, mark the place with a label corresponding in number to the name on the list. They must not suffer their brothers to dig the borders until all the plants have appeared above ground, or they will be cut off by the spade—in the Middle States the end of April is soon enough. They may dig and manure little spots around the posts of sheds and fences, and plant vines which will soon repay the labor by their beauty and fragrance, as well as the shelter they will afford to little birds; and shed an air of elegance around the roughest farm house. The coral honeysuckle (*Lonicera caprifolium*) is common—and there are plenty of wild vines in the woods, the Virgin's bower (*Clematis Virginica*) and sweet honeysuckle (*Lonicera grata*), for instance, which can be transplanted safely at almost any season; but early spring is perhaps the best—and nothing can be more beautiful than to see them growing together, and mingling the sheet of snowy blossoms of one with the bright red of the other. I much prefer them where they have at least the appearance of being useful for shade, or to hide an unsightly fence, to having them trained over those fanciful frames of lath and whitewash, which are an offence against good taste, and only to be tolerated for the sake of the flowers which cover them; the more completely they are covered the better! Nasturtions (*Tropæolum majus*) may be planted near the palings of the garden, where they are highly ornamental; and the young fruit makes an excellent substitute for capers, when put in jars of strong vinegar, and corked tight, without any other trouble.

Flower Baskets.—When there is a lawn, or opening near the house, a *flower basket* is one of the most picturesque and easily attained objects that can be thought of. Here the boys must help, and plant four stout posts firmly in the ground, so as to enclose a bed about six feet square—the rougher the posts are the better, and they should be left about four feet above the earth. In this bed put monthly honeysuckles and clematis, or any other ever-blooming vines, and surround the whole with a rough railing. Some brush wood thrown around the roots will protect them from the fowls, as well as give support to the young vines, which will soon climb over the whole, and in a year or two it will be a mass of verdure and fragrance, which will require no other care than a little manure thrown over the roots in autumn.

Another basket, which is now much in fashion, is made by driving stout stakes close together, leaving about three feet out of the ground, so as to enclose a circle or oval of any size you like. Cover the stakes closely with bark nailed on—fill this up with compost and earth well mixed; to give it more the appearance of a basket, twist a couple of grape vines, and fasten round the edge on the top, and put another twist from end to end over the whole, for a handle. When the basket is finished and the earth prepared, plant in the middle a cluster of ever blooming roses, of different colors, and around them all the flowers that can be procured to make as great a variety as possible—near the edge have verbenas, and other delicate trailing plants, to hang over the sides—let some be trained to twine over the handle, and the effect of the whole is charming.

The Dairy.—In beautifying the environs of the farm-house, these little handmaids of Flora must not overlook the dairy, which is always the abode of neatness, and by a little timely care, may be made also the dwelling of good taste. There are many flowers which thrive best in moist shaded spots, such as the pretty Mitchella repens, the delicate Forget-me-not (*Myosotis palustris*), the whole family of Irises, and the fragrant violets, with a hundred others that can be brought from the woods, and would make the place a little Eden for the birds and bees, particularly if the trees could be wreathed with trumpet creeper (*Bignonia radicans*) and the foreign ivy (*Hedera helix.*)

But I have already gone so far beyond the limits I had fixed for this first essay, that I can only wish my little friends success in their labors of love, and bid them good bye. E. S.

SILK RAGS.—The foundation of many a woman's fortune has been laid, by hanging up a bag in the corner of her kitchen for saving rags. Linen and cotton have been the only ones considered worth saving; but a French chemist has recently discovered that silk rags, hitherto generally thrown away, are still more valuable. He transforms them by a process called *palingenesis*, into new silk again, in the same way that India-rubber is drawn out into filaments and woven into a durable material. By means of a dissolvent, the silk rags are made into a glutinous paste, and like fused glass, on coming into the air, re-acquire all their original strength and tenacity.

SPRING WORK FOR FARMERS' WIVES.—Now is the time to see that everything appertaining to the spring-house or dairy-room is put in order and all needful repairs made at once. Stop up all holes, so that neither rat nor mouse can enter—get the gauze window fitted in to keep out the flies and insects which will soon be buzzing about—and see that the walls and ceiling overhead are thoroughly whitewashed. This may seem rather early work for our northern farmers; but the truth is, if we do not get it done this month, ten to one our husbands will be so busy the rest of the Spring, that they will not have time to attend to it all. See that the churns, tubs, and pails, are bright and in order, and that plenty of wide, flat pans for setting the milk are got ready. The more shallow the milk is set in pans, the more rapidly will the cream rise, and a greater quantity in proportion to the milk will be obtained. When deep, narrow milk pans are used, considerable loss ensues from want of proper rising of the cream. Preserve plenty of calves' rennets for curdling the cheese, and see that the press is all right. Cheese is getting to be a very important export to Great Britain, and we may soon monopolise that market by paying proper attention to its manufacture among us. I conclude my homily with a hint for the benefit of all good husbands; and as I am a poet by nature, they will excuse my giving it in rhyme:

For work ahead prepare the way,
For this ne'er give your wife a nay;
You can't expect a harvest prime,
Unless you sow your seed in time.

DOLLY HOMESPUN.

YEAST CAKES.—Put two handsful of hops to three quarts of water, to which add, if you like, a couple of potatoes. When the potatoes are done, mash them in a pan with a sufficient quantity of flour to form a thick batter after the liquor is strained on to it. When nearly cool, add a teacup of good home-made or brewer's yeast, and keep warm till it becomes light. As soon as it is risen, add Indian meal till quite hard. Form into a roll of a few inches diameter, which cut in thin slices and put in a moderately warm place to dry. This yeast has the advantage of all others in this particular, it may be laid aside in bags and will keep sweet during warm weather. When you wish them for use, soak them thoroughly in milk-warm water, and take three or four for two common sized loaves.

A NICE AND WHOLESOME SWEETMEAT FOR FAMILY USE.—Pare or not, as you choose, a quantity of sweet apples to fill an earthen or stone jar; add a little sugar and molasses, and if the apples are not sufficiently juicy, a little water; cover with a thick paste of flour and water, and put into a brick oven with your bread. Let them stand till morning. They will have the flavor of baked pears, and can be had fresh at all seasons. PROBA.

Boys' Department.

THE BLACK SWAN.—The Black Swan was first discovered in Swan River, and is found in vast flocks on the coast of New Holland, and in Van Dieman's Land. It is black all over save a few of the quill feathers, which are usually tipped with white. The bill is bright red. It is not as large a bird by one-third as the White Swan; but at the same time it is graceful and dignified in all its movements. We have often seen them sporting in the clear, beautiful little lakes in the London Parks, and on noblemen's estates in different parts of England. The Duke of Devonshire had quite a flock of them at his princely estate of Chatsworth when we visited it. We should like to see these rare and beautiful birds introduced into this country.

BLACK SWAN.—FIG. 35.

The above cut is a spirited representation of one. In rearing them, it is important to have plenty of clear water for their diversion; in all other respects they may be treated just like geese.

CHINA GEESE.—In your last No. of the Agriculturist, we noticed a spirited cut of Chinese Geese, accompanied with an inquiry where they could be procured, and also who was the owner of those exhibited at the late State show at Poughkeepsie. In answer to the inquiry, we would reply, that we imported them about ten years ago from China, and have some of the original stock still on hand. We have kept our flock (which has always been large) pure from any admixture. We know of no other flock of pure Chinas of this description. We ordered the first lot, and the Chinese sent us all males, and we had to wait another year before the second lot came, which, fortunately, proved to be all females—they probably not liking us "outside barbarians" to raise any progeny. Their superior qualities are, extremely delicate flavor, great hardiness of constitution, and unusual prolificness. They will lay, if well fed, all the year round; and generally hatch and raise two broods of goslings in a season, without any other feed but grass after they are hatched We have now a brood which were hatched in September, at the time of the show, which are already full grown. Spring goslings frequently lay in the fall. They have extremely beautiful plumage, always alike; a wild, shrill cry, unlike that of any other geese; an erect, graceful carriage, and would be quite an ornament to any gentlemen's grounds. They are very correctly described in your article. You may insert this in your paper if you think proper.

Although we have never sold any of these geese yet, still, if any of your friends would like to purchase them, we could part with two pairs in the spring, at $4 per pair, at our farm, or any quantity of goslings after they are full fledged in the summer, boxed up and delivered in New York at $5 per pair. This we do, believing them to be a valuable acquisition to the poultry-yard, and for the benefit of the community.

A. & H. MESIER

Wapping's Creek, Dutchess Co., N. Y.

Now, boys, you see where you can get some pure bred China geese; and the sooner you commence breeding them, and show Mr. Jack Chinaman that you are an "*inside* barbarian," the better. You might raise hundreds of them at a good profit, on poor land which would scarce support anything else. Thousands of geese are annually raised on the grass of the heaths of England, too poor even to support a sheep. In passing through Epping forest, we once met a single flock of about 800 geese coming up to London to be pastured on the heaths in its vicinity, and fattened for the market. It is a good business there, and managed almost exclusively by women and children. If we recollect right, Cobbett asserted that the geese thus raised and fattened in Surrey, were equal to the wheat grown in Northumberland.

The next information we desire is, to know who has got any pure bred, clean legged white or buff-colored bantams, not larger than stout pigeons. Several of our young friends are on tiptoe to possess some of these, and many are the epistles in round school boy hand that we have received recently, inquiring their whereabouts.

EXPERIMENTAL CROPS.—The boys should request their fathers to let them have a small patch of land on which to grow experimental crops this season. The school-boys on a model farm near Dublin, last year, raised in a large field, a crop of potatoes averaging 750 bushels per acre, and thus supported themselves at school, and made fair progress in their studies. A humble gardener in the vicinity of Cheshire, raised 64 bushels of good wheat weighing 70 lbs. per bushel, from a trifle over a half acre of highly cultivated ground. Another person produced 28 bushels of wheat from a quarter of an acre. The secret of getting these great crops lies in manuring properly and pulverising the soil very deep, say two or three feet, which they did with a spade; but you can do it much easier with a subsoil plow.

In making experiments, keep a careful record of all expenses: such as the value of labor, manure, seed, and rent of land; the value of the crop at harvesting, and the increased worth of the land. Then strike the balance between the two sums, and the difference will be the loss or gain.

NEW YORK STATE AG. SOCIETY.

The regular monthly meeting of the Executive Committee of the N. Y. State Ag. Society for February, was held at the Society's Room in the old State Hall on the 13th. The President, B. P. Johnson, Esq., of Oneida, in the chair. Present—Messrs. Prentice, Hillhouse, M'Intyre and Tucker, of Albany—Mr. Beekman, of Columbia—Messrs. Walsh and Vail, of Rensselaer—Mr. Enos, of Madison, and Mr. Lee, of Erie.

Reports of Committees.

Mr. Johnson, from the committee to whom was referred the applications for the prize for the best managed Cheese Dairy, reported that they had awarded the Gold Medal to Alonzo L. Fish, of Cedarville, Herkimer Co., and three vols. Transactions to Abraham Hall, of Holland Patent, Oneida county.

Mr. Johnson also reported that the committee had awarded the prize of $25, for the best Experiment in the Culture of Indian Corn, to George Geddes, of Camillus, Onondaga county.

Mr. Johnson also reported that the committee on that subject, had awarded the prize of $20, for the best Essay on Farm Management, to John J. Thomas, of Macedon, Wayne county.

Mr. Beekman, from the committee to whom was referred the Essays on the importance of scientific knowledge in prosecuting successfully the ordinary pursuits of agriculture, reported that the committee had examined the three Essays submitted to them, neither of which, in their opinion, was written with sufficient care to entitle it to the premium; and they recommend that the same prize be offered another year.

Mr. Lee, from the committee to whom the application for the prize for the best Text Book on Agriculture for the use of Schools, was referred, reported that two books were submitted to them, neither of which was sufficiently adapted for the purpose to entitle it to the prize, and concluded by recommending that the same premium be again offered.

Mr. M'Intyre, from the committee on Essays on Rotation of Crops, reported that they had awarded the prize, $20, to the writer of the Essay marked A., the author's name being unknown to them. [It was written by John J. Thomas, Macedon.]

Mr. R. L. Pell, from the committee on Essays on the Culture of the Apple, sent in a written report, awarding the prize, $20, to the Essay sent in with the report. [This Essay was written by John J. Thomas.]

Mr. Prentice, from the committee on Essays on the prevalent Disease in Potatoes, reported that they had come to the conclusion that neither of the Essays was such as would warrant them in awarding the premium.

Mr. Lee, from the committee on Essays on Manures, reported against awarding the premium to the Essay submitted to them. He also reported that the committee had awarded a Silver Medal to R. L. Pell, of Pelham, Ulster county, for his report of Experiments to show the comparative value of different kinds of food for cattle

Mr. Walsh, from the committee on Essays on the Culture of Silk, stated that but one Essay had been submitted to them, and that evidently not intended for the premium, as it did not contain the matters required in the prize Essay. The Essay was referred to the committee of publication.

The committee on Wheat, at the Annual Meeting, recommended that a premium of $15 be awarded to Mr. E. J. Ayres, of Tompkins, provided he furnished certain farther particulars, which Mr. Ayres having furnished, a premium of $15 was voted him, on his wheat crop, amounting to 114 bushels and 38 lbs. on two acres.

Mr. Beekman presented the Annual Report of the American Institute, which was referred to the committee of publication.

Messrs. Walsh, Lenox and Prentice were appointed a committee on the Library.

The discussion and arrangement of the List of Premiums occupied most of the afternoon, and not being completed, the Board adjourned to meet again on the 15th.

Feb. 15th.—The President in the chair. Present—Messrs. Vail, Hillhouse, M'Intyre, Lee, Enos, and Tucker.

The Premium List was taken up, and after a few trifling additions, was ordered to be published.

The Board then proceeded to the appointment of County Corresponding Committees in each County. [We are obliged to defer the publication of this list of committees till our next.]

A resolution was adopted, directing the Corresponding Secretary to open a correspondence with the County Committees, Superintendents of Common Schools, and others, for the purpose of furthering the objects of the Society, and especially the introduction of the study of the principles of Agriculture, into our Schools and Academies.

Messrs. Tucker, Beekman and Lee were appointed a committee of publication.

After the transaction of a variety of other business, the Executive Committee adjourned to meet again on the Second Thursday of March.

A room has been fitted up, in the old State Hall, expressly for the use of the State Society, where the meetings will hereafter be held. Entrance on Lodge, corner of State street.

Payment of Premiums.

All money premiums awarded by the Society, may be obtained on application to Thomas Hillhouse, Treasurer, or to Luther Tucker, Rec. Secretary, Albany. ☞ All premiums not demanded within *four months* after the award, will be considered as donations to the Society.

Agricultural Lecturer.—We are pleased to inform the public that the Executive Committee of the New York State Agricultural Society have made an arrangement with the Corresponding Secretary, Dr. D. Lee, to make a tour through various portions of the State, for the purpose of collecting useful information, and giving occasional lectures on agricultural subjects. We have no doubt his visits will be received by the farmers with warm approbation, and that due notice only will be required to insure the attendance of large audiences to hear his lectures. Dr. Lee is at present a member of the Assembly, and during the session may be addressed here on any matters pertaining to his proposed tour.—*Cultivator.*

Guano Manure—Caution.—For full directions in the use of guano, we recommend our readers to Dr. Gardner's article, page 108. We intended to have written brief directions for this Number, but these embody pretty much all necessary to be said upon the subject. Those who desire more particular information, can have the pamphlet recently published by Mr. Bartlett on this subject, by applying to us. We fear there is going to be a perfect mania on this subject, and we earnestly recommend those who would purchase, to buy only a small quantity for experiment at first, and after fully testing this, they can tell whether it will be for their interest to obtain more. Much *spurious trash* will also unquestionably be offered on sale; the farmers, therefore, cannot be too careful of whom they purchase. Such as is at present offered in this city has been subjected to rigid analysis.

FOREIGN AGRICULTURAL NEWS.

By the steam packet Cambria we have our European journals to the 4th of March.

Markets.—*Ashes*—no change in prices. *Cotton* has advanced from ¼ to ⅜*d.* per lb., and a large and active business has been done in it, speculators alone taking during the past four weeks 67,000 bags. The stock on hand at Liverpool, on the 1st of March, was 790,000 bales, against 625,000 same period last year. *Flour and Indian Corn* dull, and had declined. *Provisions.*—Beef continues in good demand; the stock on hand is considerably less than last year. Pork has fallen a trifle. Cheese firm, and the trade greatly on the increase. Butter remains without change. Lard has advanced; the stock on hand is quite light. *Tallow* has improved. *Tobacco* same as per our last.

Money is plenty, and the rates of interest 2 to 3 per cent. The Bank of England has £15,453,303 of bullion in its vaults, equal to about $75,000,000 of our money. An extraordinary amount, and yet it is but a pittance of the enormous wealth of Great Britain, and a small item of the accumulated means of her powerful empire.

American Stocks have improved since the reception of the news of the resumption of payment of the Pennsylvania interest; and as other states follow this praiseworthy and honest example, confidence will be restored. Americans can now begin to hold up their heads abroad, and consider themselves honorable men.

Business Generally is very good, and all branches of trade are well employed.

Iron has Advanced 20s. per ton, in consequence of the large contracts for railroads.

Duties to be Repealed on American Products.—Sir Robert Peel proposes the following important reduction of duties on our exports:

Ashes, pearl or pot, - - -	6d. per cwt.
Bark for drying or tanning, - -	3d. do.
Beeswax, - - - - - -	2s. do.
Cotton, - - - - - -	2s. 11d. do.
Hides, dry - - - - - -	6d. do.
do. wet, - - - - - -	3d. do.
do. tanned, not otherwise dressed,	2s. per lb.
Lard, - - - - - - -	2s. per cwt.
Lard oil, - - - - - -	20 per cent.
Rosin, - - - - - - -	2s. per cwt.
Staves, not over 72 inches in length, 7 do. breadth, 3½ do. thickness,	28s. pr 50 cub. ft.
Tar, - - - - - - -	2s. 6d. pr 12 bbls.
Turpentine, raw, - - - - -	1d. per cwt.
Turtle shell, - - - - -	1s. per lb.

We shall now be able to export lard oil in considerable quantities, the high duty heretofore preventing this to any extent.

Remedy for Blight and Insects on Fruit Trees.—Dissolve 1 lb. of soda in a gallon of rain-water; shake this up in a bottle with a pint of spirits of turpentine, when they will amalgamate; then, by adding more water, make up the quantity to 10 gallons. It should be applied with an engine having a fine rose.

Jerusalem Artichokes in Orchards.—Good crops of these may be obtained by planting them in rows 2 or 3 feet apart. They do not exhaust the soil like potatoes, and rather like the shade. Poor land suits them very well, as they have the power of drawing a larger portion of nitrogen from the atmosphere than any other cultivated plant. They pulverise the soil without exhausting it, leaving it in good condition for growing trees.

Growing Cabbages and Beans together.—The beans are set in close double rows, with wide intervals between each pair of rows, in which the cabbages are planted in May, and afford a most luxuriant crop of green food upon heavy land.

To prevent Mildew in Wheat.—Mix 50 lbs. silicate of soda with 30 lbs. sulphate magnesia, and spread upon the wheat in the month of March or April. If lime does not exist in sufficient quantity in the land, add 15 to 30 bushels to the acre, newly slacked, and spread broadcast on the growing wheat.

Pickling Meat.—Professor Refiensque denounces the use of saltpetre in brine, intended for the preservation of flesh to be kept for food. That part of the saltpetre which is absorbed by the meat, he says, is nitric acid or aquafortis—a deadly poison. Animal flesh, previous to the addition of pickle, consists of gelatinous and fibrous substances, the former only possessing a nutritious virtue; this gelatine is destroyed by the chemical action of salt and saltpetre, and, as the Professor remarks, the meat becomes as different a substance from what it should be, as leather is from the raw hide before it is subjected to the process of tanning. He ascribed to the pernicious effects of the chemical change all the diseases which are common to mariners and others who subsist principally upon salted meat, such as scurvy, sore gums, decayed teeth, ulcers, &c., and advises a total abandonment of the use of saltpetre in the making of pickle for beef, pork, &c., the best substitute for which is, he says, sugar, a small quantity rendering the meat sweeter, more wholesome, and equally as durable.

Clipping Extraordinary.—The clipping of horses having become almost a mania, a few days ago a person residing at Southwell actually clipped and singed a feeding cow, his property, in the same manner that horses are clipped, and which he considers to be an improvement to the cow. Pigs are also talked of as likely to undergo a similar operation; indeed, it is said that one man has already clipped his grunter, and is proud of his appearance.—*Stamford Mercury.*

Cirencester Agricultural College.—The Committee of the proposed New College have selected the design of Messrs. Daukes and Hamilton, architects of Gloucester and Cheltenham, from a large number, among which, we understand, were some from architects of great eminence in London. The College will occupy the delightful site in Lord Bathurst's grounds, known as Port-farm, near the railway station, at the junction of the Stroud and Tetbury roads, thus presenting a perspective of two bold fronts; the farm itself being attached to the end of the main building, altered to meet the domestic requirements of the Institution, and decorated sufficiently to be in character with the new structure, which, with this addition, will form an entire frontage of nearly 250 feet. The design is in the Tudor style, of three stories high; the upper story being lit by picturesque old-fashioned dormar windows, of the style so prevalent among the collegiate buildings of Oxford. The centre is occupied by a bold tower, the upper part of which is intended to form an observatory for meteorological and other scientific purposes. We understand that the committee intend to complete only the main portion of the building at present, and that the works are to be speedily commenced.—*New Farmer's Journal.*

Agricultural Statistics of France and England.—There are about 4,800,000 hectares pasture land in France, and 25,000,000 of arable land. The result is a scarcity of cattle, forage, horses, and manure. France annually imports horses and cattle to the value of 100,000,000 francs. The following is a comparison of the statistics between France and England:

	France.	England.		France.	England.
Horses,	40,000	170,000	Sheep,	130,000	770,000
Cattle,	800,000	1,250,000	*For each million of inhabit*		
Sheep,	5,200,000	10,200,000	Horses,	1,667	32,692
For each million hectares.			Cattle,	33,333	221,154
Horses,	1,000	13,077	Sheep,	216,667	1,961,523
Cattle,	20,000	96,154			

Cure for the Distemper in Cattle.—The Earl of Essex says, that this first showed itself in one of my cattle by its discharging abundant saliva from the mouth, with sore and inflamed tongue and gums, very dull, no appetite, confined bowels, and very hot horns. I then desired the bailiff to give the animal one-half pint of the spirits of turpentine, with one pint linseed oil: repeating the oil in twenty-four hours, and again repeating it according to the state of the evacuations. At the end of twenty-four hours more, the bowels not having been well moved, I repeated both turpentine and oil. In two days the beast showed symptoms of amendment, and in three or four took to his food again, and did perfectly well. All the yard beasts, and two of the fattening beasts, have had it (five others I had sent to London before the disease appeared), and all have been treated in the same manner with perfect success. Half a pint of turpentine is the smallest, and one pint the largest, dose during three or four days. Little food, besides oatmeal gruel, was given.

Population of England, compared with the Surface of Land Cultivated.—A calculation by Mr. W. K. Brown, of the probable population of England in 1861, and of the territorial surface as the source of sustenance, estimated upon the state of population from 1791 to 1841, was submitted to Sir Robert Peel in May, 1844. In this it is stated that the

Acres of land cultivated and uncultivated in 1791, - - - - - -	32,342,400
Population estimated, - - - -	7,500,000

Four acres and a fraction for each person, including maintenance of horses.

Acres of land rated or cultivated in 1841,	30,000,000
Uncultivated, - - - - - -	2,342,400
	32,342,400
Population, - - - - - - -	15,000,000

Two acres and a fraction for each individual, including maintenance of horses.

The population returns from 1831 to 1841, give an increase of population in ten years, in England, of 2,000,000, or about 13,000,000 in 1831. The same increase going on to 1851 (or seven years to come) will make at that period—

Population in England in 1841, - -	15,000.000
Increase from 1841 to 1851, - -	2,000,000
Population in 1851, - - - - -	17,000,000
And in 1861, 2.000,000 more from 1851,	2,000,000
Population in 1861, - - - - -	19,060,000

—*Condensed from the Jour. of Ag.*

Improvement of Barren Lands.—There are men now living who could remember when 40,000 acres of land, belonging to the late Lord Leicester, in Norfolk, which are now worth 40,000*l.* a year, were nothing but rabbit warrens and barren heaths. Lord Yarborough had 30,000 acres of land in Lincolnshire, which formerly let at 4*s.* 6*d.* per acre, and at this low rate ruined almost every farmer who rented it; this same land is now rented at an average of 25*s.* per acre, by farmers who are all making such large fortunes that many of them keep their carriages.

Age of the Queen Bee.—The precise age of the queen bee is not ascertained, but she has been known to live at least four years, and is perhaps the longest-lived insect we have. It has occurred to me that old queen bees are larger than young ones; if so, their growth is at variance with the received belief that "the period of growth in insects is during the larva condition." May there not, however, be an analogy in this respect between the queen bee and the mole cricket, which increases in size with age? But that insect, if I may so call it, belongs to a class that have no "abstinent, or chrysalid state." Some old queen bees have a slight yellowish mark on their sides, which I never observed in young ones.

Mildew has been shown by naturalists to be a minute fungus, whose germs are floating in the atmosphere, and only require for their development, a particular condition of the surface of whatever plant they attack. Thus, their growth is, doubtless, favored—perhaps insured—by the exudation of sap from the ruptured vessels of the wheat plant, on which they may alight. This rupture may be caused by a plethoric state of those vessels—perhaps, also, by a deficiency of silex in the epidermis of the straw; and this condition is brought on by whatever occasions a great flow of sap, or causes it to continue too long; and the indications of it are a deep green color in the leaves and straw, and the continuance of this dark green color a few inches below the ear after the chaff has begun to turn off. When this symptom appears, a bad case of mildew is inevitable.

That the excessive use of nitrogenous manures will produce this disease is evident, from the mildew which follows the use of nitrate of soda and guano, on rich soils and in growing seasons, as a dressing for wheat—from that, also, which attacks the wheat growing on the sites of dung-heaps, when other parts of the field are free from it—and also from the usually diseased state of wheat grown in highly cultivated gardens. A continuance of warm and humid weather, which produces a rapid and luxuriant growth of leaf and straw, and keeps the plant in this state when the grain ought to be approaching maturity, is highly favorable to the development of mildew.

Value of Coal Ashes.—Part of a piece of wet heavy land was dressed with them; the result was most satisfactory. It could be easily seen at a considerable distance how far they had been applied; and the crop was quite as heavy as it could have been expected, had good manure been applied. I imagine they act not directly as a manure, but, like charcoal, they are instrumental in absorbing ammonia and other gases, which plants are known to feed rapidly on; and to yield it to the plants, without giving off any of their own substance, which remains unchanged for years.

Great Products of Potatoes.—Mr. Joseph Meloney says he has discovered a mode of culture by which he can obtain 1,000 bushels of fine mealy potatoes from one acre of land. He intends to publish a pamphlet detailing the means by which this extraordinary produce is to be obtained.

Alderney vs. *Durham Cows.*—In a late Number of the Chronicle one of your correspondents said that an Alderney cow would not cost near so much to keep as those large beasts usually kept by milkmen I have now one small milch Alderney and two large Durhams, and the Alderney will eat nearly as much as the other two!

To Secure the Fruiting of a Tree.—Select a tree well furnished with blossom buds, just as they are beginning to expand. Take a potato-fork, and with it make holes all over the surface of the space occupied by the roots, heaving the earth by pressing on the handle, and with this exertion make holes about 18 inches apart. Having dissolved 1 oz. of nitre to 3 gallons of water, fill the holes with the solution. No manure must be given. Should, after stoning, the tree appear unable to sustain the fruit, the following preparation may be applied in the same manner. To 1 gal. of blood add 1 gal. of water and 1 oz. of potash. Stir the whole well together, and when it has settled, pour off the liquid, and mix 1 gal. of this liquid with 1 gal. of water, and pour it into holes made in the manner already described.—*Condensed from Gar. Chron.*

Editor's Table.

Catechism of Agricultural Chemistry and Geology, for the Use of Schools. By James F. W. Johnston, of Scotland. With an introduction by John Pitkin Norton, of Connecticut. Published by Erastus H. Pease, Albany, N. Y. pp. 74. Price 20 cents. We are mistaken if this little book does not work a revolution in the study of agricultural science in this country. No person can hereafter complain about not understanding the scientific terms of agriculture; for this little publication so clearly and simply explains them, that the merest child can understand. Moreover, as it can be read in three hours, and costs but a pittance, there are none so poor or so busy that they cannot spare the money to purchase and the time to read it. It has the recommendation of the Secretary of State and other eminent men, and is to be introduced into all the common schools of New York. Such is our estimation of the value of this publication, that we mean to give some extracts from it in our next. For sale by Saxton & Miles, 205 Broadway.

Spirit of the Times. This sprightly sporting paper has come out in handsome new type of a larger size generally than the last volume, which greatly improves its appearance, and makes it altogether more readable—at least to our over-worked eyes. Several new contributors have come to the aid of the Spirit in its present volume, "men of mark" and full of fun. Any one in search of horse lore or the sports of the field, and who wants an hour's hearty laugh once a week, will "please walk up to de captin's offus" and douse his "tin" for the Spirit. Published by John Richards, No. 1 Barclay street, N. Y. Edited by Wm. T. Porter. A weekly folio of 12 pages. Price $5 a year.

Stable Economy, by John Stewart. The American edition, with notes and additions, by A. B. Allen. Published by D. Appleton & Co., 200 Broadway, N. Y., 378 pages, illustrated with numerous wood-cuts. Price $1,00. This work is considered the best ever published in Great Britain on the subject of which it treats, and is standard authority there. Whether we have improved it any in this edition, we shall leave the public to judge. It is very handsomely got up by the publishers, and is one of the most useful and elegant books for its price which has been issued from the press this season.

The Taconic System; based on observations in New York, Massachusetts, Maine, Vermont, and Rhode Island. By Ebenezer Emmons, M. D., pp. 65, quarto, illustrated by wood-cuts and plates. Price $1. We are not much of a Geologist, and do not feel qualified, therefore, to give an opinion of this work; but others who have made this noble science a study, speak highly of Dr. Emmons' book, and say that he has completely established his views upon the Taconic system. The plates are uncommonly well done. The tracing is soft and delicate, and at the same time very distinct.

The South-Western Farmer. Edited by N. G. North and M. W. Philips, Raymond, Miss. A weekly paper of 8 pages. Price $3 a year. We have received No. 1, of Vol. 4, of this spirited and excellent periodical, commencing a new series. It is arrayed in a new and handsome dress, and does great credit to its enterprising publisher. Dr. Philips, the junior editor, is one of our own most valued contributors, and it affords us great pleasure to bear witness to his and Mr. North's abilities in the conduct of a paper which is doing great good at the south-west, in advancing the science and a more enlightened practice of agriculture in that highly favored region. We wish the South Western Farmer the success it richly merits, and will gladly receive subscriptions for it at this office. In return, both editors will please consider themselves duly appointed agents of the American Agriculturist, and we respectfully request all other editors thus to act for us.

A Practical Treatise on Humanity to Honey Bees: or, Directions for the Management of Honey Bees, upon an improved and Humane Plan, by which the lives of Bees may be preserved, and abundance of Honey of a superior quality be obtained. By Edward Townley. For sale by Saxton & Miles. 162 pages. Price 50 cents. Any one desirous of learning all about bees cannot do better than purchase Mr. Townley's little book, or give him a call in Canal street, where he keeps an extensive apiary.

Crabb's English Synonymes, with copious Illustrations and explanations, drawn from the best writers. A new edition, enlarged. By George Crabb, M. A. Published by Harper and Brothers, 82 Cliff st., New York. In one volume, double columns, 8vo., 535 pages. Price $2,37. This book holds the same distinguished rank among the Dictionaries of Synonymes, as Webster's or Johnson's great works do among defining dictionaries. In this last edition, the author has made some striking improvements, arranging the words in a scientific manner, arising from their alliance in sense, or from the general nature of the subjects; thus affording the advantage of a better connected explanation of terms, more or less allied to each other. At the same time, the purpose of reference is more fully answered by an index so copious, that the reader may immediately turn to the particular article sought for. We think he has eminently succeeded in his plan. Every student of the English language, and all who aim to be correct and perspicuous writers, should have this excellent work lying on their table for constant reference.

Eclectic Magazine. A selection from the best Foreign Periodicals. By Professor Agnew. Published monthly by Leavitt, Trow & Co., 194 Broadway, N Y. Price $6,00 a year, or $5,00 in advance. The selections for this Magazine are admirable, giving at a comparatively trifling sum the cream of foreign literature.

Report of the Commissioner of Patents for 1844. This is a Document of 520 pages, 8vo., in which Mr. Ellsworth has brought together a much larger amount of information bearing upon Agriculture than in any previous report. It is a work of great labor and value, and every intelligent farmer should make it a point to possess himself of it. Several of the articles are quite elaborate, particularly those of present pressing interest, like the disease in potatoes, and preparation of provisions for the English market. We shall endeavor to give a synopsis of this Report in our next, and in the meanwhile we heartily recommend its perusal to all interested in the advancement of agriculture and the arts.

M'Culloch's Universal Gazetteer. A Dictionary, Geographical, Statistical, and Historical, of the various Countries, Places, and principal Natural Objects in the World, by J. R. M'Culloch, Esq. In which the articles relating to the United States have been greatly multiplied and extended, and adapted to the present condition of the country, and to the wants of its citizens. By Daniel Haskell, A. M. Illustrated with seven large maps. Published by Harper & Brothers, 82 Cliff st., New York. In two volumes, double columns, imperial octavo, of over 1100 pages each. Price, handsomely bound, $6,50. Mr. M'Culloch is known as one of the most able, indefatigable, and accurate writers on Geography, Commercial Statistics, &c., &c., in England; and in his Dictionary before us, with the additions of Mr. Haskell, the Messrs. Harpers have presented the American public later and more reliable information on the subjects of which it treats, than can be found in any other book we know extant, at double its price.

Recent Improvements in Arts, Manufactures, and Mines. being a Supplement to his Dictionary. By Andrew Ure, M. D. Illustrated with 190 engravings. D. Appleton, & Co., 200 Broadway, pp. 304 Price $1.50. This is an admirable supplement to Ure's great work, and brings down all improvements in Arts to the present day. In this we find an able article of 12 pages, on the different kinds of Guano, with elaborate and exact analyses of them. Caoutchouc (India Rubber) is treated at length. Bread, with illustrations of an improved bakery, interested us much; new light is thrown on Fuel, while Flax, Tobacco, Tea, Stearine, Silk, Chocolate, Coffee, and many other things relating to agriculture, are more or less considered. The Dictionary proper contains 1340 pages, and is illustrated with 1241 cuts. Price $5,00, or with Supplement, $6,50.

Brande's Encyclopædia of Science, Literature, and Art: Comprising the History, Description, and Scientific Principles of every branch of human knowledge; with the Derivation and Definition of all the Terms in general use. Edited by W. T. Brande: Illustrated by numerous engravings on wood. Published by Harper & Brothers, 82 Cliff st., New York, pp. 1352, double columns, imperial octavo. Price, handsomely bound, $4,00. In editing this Encyclopædia, Mr. Brande has been assisted by the most eminent men in Great Britain; and among these we find the names of Cauver, Gwilt, Loudon, M'Culloch, Galloway, Raper, Merivale, and Owen. Such are the merits of this able work, that it immediately became a standard authority. It contains a large amount of matter in a very condensed and concise form, embracing all that is known on the subjects of which it treats, up to the present year. As a Dictionary of reference, there is nothing equal to it.

Rural Economy in its Relations with Chemistry, Physics, and Meteorology; or Chemistry applied to Agriculture. By J. B. Boussingault. Translated, with an Introduction and Notes by George Law. D. Appleton & Co., 200 Broadway, pp. 507. Price $1,50. The subjects are, Vegetable Physiology and the chemical constitution of its substances; Saccharine Fruits, and Juices; Soils; Manures; Rotation of Crops; Feeding of Animals; Animal Origin; Economy of Animals; Stock in general and its production of Manure; Fattening of Domestic stock; and Meteorological considerations. All these subjects, with their various connections, are treated by the author in a clear, able, and satisfactory manner, and the philosophy of the whole matter considered in its relation and applicability to Agriculture. The work is the fruit of a long life of study and experiment, and its perusal will aid the farmer greatly in obtaining a practical and scientific knowledge of his profession.

Blackwood's Magazine. An exact fac-simile of the Edinburgh Edition, reprinted by Leonard Scott & Co., 112 Fulton st. N. Y. Price $3.00 a year. We see that Professor Wilson and Sir Edward Lytton Bulwer are contributors to the February number. It is racy, witty, and brilliant, and altogether the best British Magazine issued.

Acknowledgments.— To Alexander M'Donald, Esq., for the Shield at Eufaula, containing the address, *marked*, of the Barbour Co. Ag. Society, to the President of the Alabama State Ag. Society, on the subject of growing less cotton. We need scarce add that we agree entirely in its cogent reasoning. To the Planter's Banner for a *marked* article, "Farming at Attakapas." It is admirable, and Mr. Murphy deserves high praise for setting so good an example. As soon as we can get up to our correspondence on hand, that has been knocking hard at our door for admission during the past three months, we mean to copy it.

REVIEW OF THE MARKET.

PRICES CURRENT IN NEW YORK, MARCH 24, 1845.

ASHES, Pots,	per 100 lbs.	$3 75	to	$4 00
Pearls,	do.	4 25	"	4 38
BALE ROPE,	lb.	6	"	9
BARK, Quercitron,	ton,	23 50	"	25 00
BEANS, White,	bush.	1 25	"	1 50
BEESWAX, Am. Yellow,	lb.	28	"	31
BOLT ROPE,	do.	12	"	13
BONES, ground,	bush.	35	"	40
BRISTLES, American,	lb.	25	"	65
BUTTER, Table,	do.	15	"	18
Shipping,	do.	8	"	12
CANDLES, Mould, Tallow,	do.	9	"	12
Sperm,	do.	28	"	38
Stearine,	do.	20	"	25
CHEESE,	do.	6	"	8
COAL, Anthracite,	2000 lbs.	5 00	"	6 00
CORDAGE, American,	lb.	11	"	12
COTTON,	do.	5	"	10
COTTON BAGGING, Amer. hemp,	yard,	14	"	15
American Flax,	do.	16	"	17
FEATHERS,	lb.	27	"	31
FLAX, American,	do.	7	"	8
FLOUR, Northern and Western,	bbl.	4 50	"	4 88
Fancy,	do.	5 00	"	5 62
Southern,	do.	4 50	"	4 88
Richmond City Mills,	do.	5 50	"	5 75
Rye,	do.	3 00	"	3 12
GRAIN—Wheat, Western,	bush.	1 00		1 05
Southern,	do.	1 00		1 05
Rye,	do.	68		70
Corn, Northern,	do.	48		50
Southern,	do.	44		46
Barley,	do.	56		58
Oats, Northern,	do.	29		30
Southern,	do.	24		26
GUANO,	100 lbs.	2 00	"	2 50
HAY,	do.	33	"	40
HEMP, Russia, clean,	ton,	205 00	"	210 00
American, water-rotted,	do.	105 00	"	185 00
American, dew-rotted,	do.	75 00	"	125 00
HIDES, Dry Southern,	lb.	9	"	11
HOPS,	lb.	13	"	15
HORNS,	100.	2 00	"	8 50
LEAD,	lb.	3½	"	4
Sheet and bar,	do.	4	"	4½
MEAL, Corn,	bbl.	2 44	"	2 75
Corn,	hhd.	11 75	"	12 00
MOLASSES, New Orleans,	gal.	30	"	32
MUSTARD, American,	lb.	16	"	31
NAVAL STORES—Tar,	bbl.	1 50	"	1 56
Pitch,	do.	80	"	1 00
Rosin,	do.	55	"	70
Turpentine,	do.	2 75	"	3 25
Spirits Turpentine, Southern,	gal.	39	"	40
OIL, Linseed, American,	do.	73	"	75
Castor,	do.	65	"	70
Lard,	do.	55	"	65
OIL CAKE,	100 lbs.	1 00	"	—
PEAS, Field,	bush.	1 25	"	1 50
PLASTER OF PARIS,	ton,	2 50	"	2 62
Ground, in bbls.,	of 350 lbs.	1 12	"	1 25
PROVISIONS—Beef, Mess,	bbl.	6 00	"	8 00
Prime,	do.	4 50	"	5 50
Smoked,	lb.	5	"	7
Rounds, in pickle,	do.	3	"	5
Pork, Mess,	bbl.	8 75	"	13 00
Prime,	do.	6 50	"	8 12
Lard,	lb.	6½	"	7½
Bacon sides, Smoked,	do.	3½	"	4½
In pickle,	do.	3	"	4
Hams, Smoked,	do.	6	"	11
Pickled,	do.	4	"	7
Shoulders, Smoked,	do.	4	"	6
Pickled,	do.	3	"	4
RICE,	100 lbs.	3 00	"	3 50
SALT,	sack,	1 35	"	1 45
Common,	bush.	20	"	30
SEEDS—Clover,	lb.	6½	"	7
Timothy,	7 bush.	10 00	"	12 00
Flax, rough,	do.	10 00	"	11 50
clean,	do.	12 00	"	12 25
SODA, Ash, cont'g 80 per cent. soda,	lb.	3	"	3½
Sulphate Soda, ground,	do.	1	"	—
SUGAR, New Orleans,	do.	5½	"	8
SUMAC, American,	ton,	25 00	"	27 50
TALLOW,	lb.	6½	"	7
TOBACCO	do.	2½	"	6
WHISKEY, American,	gal.	23	"	25
WOOL, Saxony,	lb.	45	"	60
Merino,	do.	35	"	45
Half-blood,	do.	30	"	35
Common,	do.	25	"	30

NEW YORK CATTLE MARKET—March 24.

At Market, 1250 Beef Cattle (750 from the South), 800 Sheep and Lambs, and 80 Cows and Calves.

PRICES.—Beef Cattle, in consequence of the increased supply, are a little cheaper, and we quote $5.00 to $6.50, with a few extra at $7.00—left 350.

COWS AND CALVES.—All sold at last week's rates.

SHEEP—We continue to quote at $1.75 to $4.50.

HAY is very plenty and dull at 50a56 cents for loose, by the load.

REMARKS.—*Ashes* quite dull. *Cotton* has advanced from ⅛ to ¼ a cent per lb. since the arrival of the Cambria, and a heavy business has been done in it the past week. Export from the United States since 1st September last, 980,434 bales; same time last year, 520,050; same time year before, 1,143,619. *Iron, Molasses, Sugar, and Pork* have advanced. *Beef, Cheese, Lard, Butter, Rice, and Tobacco,* quite firm. Other articles continue without change.

Money is plenty at 6 to 7 per cent.

Stocks have fallen a little under the agitation of the annexation of Texas.

The Weather has been mild the past month, with the exception of a week or ten days. It is now quite warm again, and every appearance of an early season. We understand that the crops south of us look very promising.

Business Generally has opened quite brisk.

ANSWERS TO CORRESPONDENTS.—S., Z. B. Wakeman, W. D., John P. Norton, G. L. Cockrill, John Lewis, A. Beatty, J. E. Teschemacher, B. C. D., Edmund Ruffin, and One of the Boys, are received and shall have place in our next. We have the Prize List for the next Annual Show of the N. Y. State Ag. Society in type, but it is unavoidably crowded out to make room for other matter. It shall appear in our next.

SEWARD'S SEED SOWER.

This machine is a new and superior invention, and answers to sow most kinds of seeds with great accuracy and despatch. Price $10. For sale by A. B. ALLEN, 205 Broadway.

PREMIUM EAGLE, SUBSOIL, AND OTHER PLOWS.

The subscriber having been appointed sole agent in this city for the sale of the celebrated Premium Plows, made by Ruggles, Nourse & Mason, of Worcester, Massachusetts, now offers them at the manufacturers' home prices. They are calculated alike for the Northern Farmer and Southern Planter, and embrace all varieties. Price from $3 50 to $11 50.

The great number of premiums which these plows have obtained at the most important plowing-matches, and the universal satisfaction they have given wherever introduced, render it unnecessary to particularise their merits. They are made of the best materials, are highly finished, and combine light weight and easy draught, with great strength and durability. Though the first price is higher than the common kinds, they do their work in so superior a manner, and with a draught so much easier for the team, that they are universally preferred where known. It has been proved, that a single pair of oxen, horses, or good mules attached to the Eagle plow, No. 1, in any reasonably friable soil, will easily turn a furrow of 6 inches deep by 12 inches wide. In addition to the above good qualities, being made of the best materials and highly finished, these plows last much longer than the common kind: they are consequently much the cheapest in the end.

SUPERIOR HAND AND HORSE CULTIVATORS.

These are made at the same manufactory. Price $3 to $6 50.

NEW AND IMPROVED DRILLING MACHINE.

This is calculated for sowing all kinds of seeds. Price $10.

A. B. ALLEN, 205 Broadway, N. Y.

HOVEY'S SEEDLING STRAWBERRY.

Of which the largest berries are from five to six inches in circumference, and their quality not surpassed. See Magazine of Horticulture, and Agricultural papers generally.

For sale by Philetus Phillips, Middletown Point, N. J. Agents: John Moore, No. 31 Fulton street, New York; Henry A. Dreer, 97 Chestnut street, Philadelphia; Payne and Gregory, Lynchburgh, Va.; T. M. Hunt, Auburn, N. Y.; S. O. Loomis, Windsor, Conn.; Thomas T. Bleyler, Bordentown, N. J.; D. C. Goodale, Chimney Point, Vt.; J. B. Ackerman, Goshen, N. Y.; Jesse O. Dissoway, Richmond, N. Y.; H. J. Sickles, Albion, N. Y.; Josephus Shann, Rahway, N. J.; B. P. Winant, Rossville, N. Y.; Jacob W. Dillon, Kingston, N. Y.; Wightman and Turner, New London, Conn.; Charles Raymond, New Canaan, Conn.; M. A. Santon, Norfolk, Va.

The plants ordered by agents will be forwarded with the utmost punctuality at such times as to reach their destination on the 1st, 15th, and 30th April. Purchasers, therefore, by giving the agents their orders seasonably, with reference to the above dates, can be ready to receive their plants immediately on their arrival, while fresh and in good order.

A sheet containing particular directions for the cultivation of this and other varieties of the Strawberry (chiefly extracts from the Magazine of Horticulture, published at Boston), is furnished gratuitously with the plants sold. Price of Plants, $1.50 per 100.

February, 1845. a1 2t

PERUVIAN GUANO.

The subscriber will keep constantly on hand for sale in large or small quantities, the best quality genuine Peruvian Guano.

Price in single bags, containing from 125 to 175 lbs., 2½ cts. per lb.
" over half a ton to one ton,.................. 2¼ " "
" over one ton to five tons,.................. 2⅛ " "

The Peruvian Guano is worth *nearly double* the African, as will be seen by the different chemical analysis; and this is more particularly proved by actual experiments by farmers on different crops.

Guano is the cleanest and most convenient manure known, and especially recommends itself for the garden and conservatory, being free from weeds, always ready at hand, and very easy to be applied. A. B. ALLEN, 205 Broadway.

IMPORTED ENGLISH GRASS SEEDS, &c.

J. M. THORBURN & CO., 15 John street, New York, have received by late arrivals from England, a variety of the most improved Grass Seeds, cultivated by the farmers of Yorkshire, Northumberland, and Devonshire, which will be found worthy a trial. Among several sorts are the following:

Cynosurus cristatus (Crested Dog's Tail Grass), excellent for sheep, producing upwards of 6,000 lbs. to the acre. 50 cents per quart.

Festuca pratensis (Meadow Fescue), for horses, cattle, and sheep—produces very early in the Spring. 25 cents per quart.

Festuca loliacea (Darnel-like Fescue Grass), possessing all the valuable properties of Rye Grass and few of its defects; its produce is larger; it springs earlier and improves by age—well adapted for meadows which are periodically overflowed. 25 cents per quart.

Festuca ovina (Sheep's Fescue.) Linnæus affirms that sheep have no relish for hills and heaths that are destitute of this grass. 37½ cents per quart.

Poa nemoralis (Wood Meadow Grass.) Its early growth in the Spring, and its remarkably fine succulent and nutritive herbage, recommend it strongly for admission into the company of the superior permanent grasses. 37½ cents per quart.

Poa trivialis (Roughish Meadow Grass), most valuable for moist rich soils and sheltered situations. Oxen, horses, and sheep have a marked partiality for it. 25 cents per quart.

Poa pratensis (Smooth Stalked Meadow Grass), not less valuable than P. trivialis, earlier in leaf, and will thrive with less moisture. 25 cents per quart.

Also, 200 lbs. Madder Seed, crop 1844, $1 per lb. The tract of Gasparin, on the treatment of Madder, gratis.

Multicole Rye, a native of Poland, will grow in the usual soil suited to Rye; its produce is wonderful on light soils. 12½ cents per lb.

Spurry, well adapted for poor sandy soils, and very rapid growth. 25 cents per lb. See Report of Commissioner of Patents.

White French Field Carrot, superior to all others. Mr. Hamilton, of Vermont, raised last season 1,200 bushels on a half acre, and found them superior to all other carrots for stock. Price $1 per lb.; 2 lbs. to an acre.

Essex Spring Wheat, $3.50 per bushel.

Early Prince Albert Peas—ready in eight weeks—50 cents per quart; with every variety of Garden Seeds that can be procured.

SALE OF FULL BLOODED NORMAN HORSES.

The subscriber having relinquished farming, will offer at public vendue, at his farm in Moorestown, Burlington county, New Jersey, nine miles from Philadelphia, on Tuesday, the 20th of May next, his entire stock of NORMAN HORSES, consisting of two imported Stallions, "Diligence" and "Buonaparte;" two imported mares—three full-blooded stud colts, one, two and four years old—two full-blooded Fillies, three and four years old—two Fillies by "Diligence," from a half-blood Canadian Mare, three and four years old, and one Filly four years old, by Diligence," from a well bred English Mare, broke and kind to harness.

The undersigned deems it unnecessary to speak at large of the qualities of these horses, so much having been said of this particular importation (which is believed to be the only one ever made to the United States), in all the principal Agricultural papers. In a few words, they are the *Canada* Horse, on a larger scale, combining the form, activity and hardihood of that well known race, with greater size and strength. "Diligence" has been a remarkably successful Stallion; he has been exhibited at the Fairs of the Pennsylvania and New York Agricultural Societies, where he was not entitled to compete for the premiums, but received the highest encomiums from the Committees. At the Fair of the American Institute, in New York City, in October last, he received the Silver Medal of the Institute.

It is expected that a large number of the Colts of "Diligence" will be on the ground on the day of sale, some of which, no doubt, may be purchased. EDWARD HARRIS.

Moorestown, Burlington Co., N. J. }
March 15th, 1845. } a1 2t

DEER FOR SALE.

Two young Deer, a buck and doe, for sale, perfectly tame. Price $75, delivered caged, on board a steamboat at Albany.

Address, A. L. LINN, Schenectady,
a1 1t or A. B. ALLEN, New York.

EXTENSIVE SALE OF IMPROVED SHORT HORNED CATTLE.

Having become overstocked, I find myself under the necessity, for the first time, of publicly offering my cattle for sale; and that the opportunity to purchase fine animals may be made the more inviting, I propose to put in my ENTIRE HERD—such a herd of improved Short Horns as has never before been offered by any individual in this country. The sale will embrace about fifty animals, Bulls, Cows and Heifers; all either imported, or the immediate descendants of those which were so, and of perfect pedigree. Those imported were from several of the best stocks in England, selected either by myself or my friends.

It is sometimes the practice at sales of this kind, where the interest involved is considerable, for the proprietor to protect himself by bye bidders, or some other kind of management, or for the owner to stop the sale if offers do not come up to his expectations or the requirements of his interest. Such practices have a tendency to lessen the interest in public sales of this character, especially with those who cannot attend without considerable personal inconvenience. But in this case, assurances are given that no disappointment shall arise to the company from either of the causes mentioned, and a good degree of confidence is felt that there will be no dissatisfaction from the character of the cattle themselves. They shall all be submitted to the company, and sold at such prices as they choose to give, without any covert machinery, effort, or understanding with any person; reserving to myself only the privilege of bidding openly on three or four animals which shall first be designated. This reservation is made that I may not get entirely out of the stock of some particular families which I highly esteem, and that could not probably be replaced.

A full catalogue will be prepared and inserted in the May number of the Cultivator.

The sale will take place at Mount Hope, one mile south of the city of Albany, on Wednesday, the 25th day of June next, at 10 o'clock, A. M. E. P. PRENTICE.

Mount Hope, near Albany, March 15, 1845.

3t

☞ As the subscriber intends being present at the above sale, he respectfully tenders his services to such of his friends as wish to purchase from this herd, and who may find it inconvenient to attend personally to bid. Any instructions they please to give him as to choice of animals and prices at which to purchase, they may depend upon being faithfully executed. Mr. Prentice is a gentleman of honor and integrity, and whatever is stated above about his entire herd being sold strictly as advertised, the public may depend upon will be done.

A. B. ALLEN, 205 Broadway, N. Y.

NEW AND IMPROVED POUDRE.TE.

Made by the Lodi Manufacturing Co., may be had at the office of the Company, No. 43 Liberty Street, New York, or at their Factory on the Hackensack River, in New Jersey, or by letter, *post paid*, addressed to "*President of the Lodi Manufacturing Co.*, New York," or from the several agents who advertise it for sale, in the country.

Terms, *Cash on Delivery*.—For one Barrel, $2; 2 do., $3.50; 3 do., $5; 4 do., and up to 6, at $1.67 each; 7 do., $1.50, is $10.50; and $1.50 per Barrel for any greater quantity—delivered at any wharf or place in the City of New York, free of expense.

The Company have now on hand several thousand barrels of their new and improved article, composed of night soil, compounded with various other substances, every one of which is a good manure by itself.

The Poudrette made by this Company, is different from that made by any other concern in Europe or America. It contains no raw-peat, turf, or meadow mud, or any other inert substance; it is not like the old fashioned Poudrette, which will generally only last for a single crop, but its effects will last for years. It has been tried extensively for the last 2 years on Long Island, in Connecticut, New Jersey, and elsewhere, and has answered to such a degree, that already a very large increased demand for the next season has been manifested.

If used according to *directions*, it will be found *according to experiments* which have been made, to possess the following properties:—

1st. It is quicker in its operation upon vegetable matter than any *other Poudrette* or other Manure. It has ripened corn for table use in 60 days, and will ripen other crops several weeks sooner.

2d. It is more fertilizing; and its fructifying Powers are greater as proved by the increased yield; its effects are lasting, and by its powers of attraction, it absorbs from the atmosphere, humidity, ammonia, carbonic acid, and nitrogen, and retains their fertilizing properties, giving them out only as vegetation requires them for nutrition, thereby obviating the effects of a long drought.

3d. It will be found to be the richest, cheapest, and best manure now in use. *It saves in labor, its whole cost*, in comparison with the labor attending barnyard manure.

4t [illegible] ured with Poudrette, are not subject to Rot, or [illegible] hen manured with barnyard manure.

f1 3t.

AURORA AGRICULTURAL INSTITUTE.

This Institution, recently organized, is located on a farm of over 200 acres, lying in and directly adjoining the village of Aurora, on the east bank of Cayuga lake, in Cayuga county, New York, 16 miles from Auburn, by stage, and 12 miles South from Cayuga Bridge and the Auburn and Rochester Railroad, by steamboat direct, in summer.

Its design is to afford every facility for young men to make themselves thoroughly acquainted with the principles of Agricultural science, and their judicious application to practical Husbandry; and particularly to afford young men from our large towns the most favorable advantages for preparing themselves for Agricultural pursuits.

Terms $150 a year, payable quarterly in advance. No person under fourteen years of age will, as a general rule, be received. Apply to B. R. McIlvaine, 44 Great Jones st., New York, or Rev. W. Roosevelt, 413 Broome st. A. B. ALLEN, 205 Broadway.

CHARLES C. YOUNG, A. M., Proprietor and Principal.
ALEXANDER THOMPSON, A. M., M D., Lecturer on
Botany, Geology, Agricultural Chemistry, &c.
DAVID THOMAS, Visitor and Adviser.

March 12, 1845. a1 1t*

EXOTIC, NURSERY, AND HORTICULTURAL GARDENS,

Flushing, L. I., near New York.

The subscribers having established a Nursery with the above title, with the determination of conducting it in the very *best* manner in all its departments, offer for sale, *at reasonable prices*, a *select* variety of

FRUIT AND ORNAMENTAL TREES,

Hardy Shrubs, Herbaceous Plants, Grape Vines of all the best kinds, superior Strawberries, Fastolff Raspberry, Gooseberries, &c.

BULBS AND TUBERS, SUPERB CARNATIONS, DAHLIAS, &c.

AND A MOST EXTENSIVE AND CHOICE COLLECTION OF

GREEN-HOUSE AND STOVE PLANTS,

Embracing everything *new* and *beautiful* in that department, personally selected in Europe during the past summer, of

ROSES AND CAMELLIAS.

We have a very choice collection of the former, full 1,000 varieties, and of the latter nearly 300, all in fine order.

Catalogues of the above will be sent gratis to all applicants, *post paid*, and every order promptly executed. From unknown correspondents, a remittance, draft, or satisfactory reference expected. VALK & CO.

☞ Such papers as we send the above advertisement to marked, will please give it three insertions, and send bill to this office.

a1 3t

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AMERICAN AGRICULTURIST.

Agriculture is the most healthful, the most useful, and the most noble employment of man.—WASHINGTON.

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A. B. ALLEN, Editor. SAXTON & MILES, Publishers, 205 Broadway.

TO SUBSCRIBERS.

THE publishers of the American Agriculturist present their compliments to their subscribers, and in answer to the question daily asked, why their papers are not sent, inform them, that the terms of *payment in advance* have not been complied with. In many instances, where adopting the advice of friends, the paper has been sent before pre-payment, it has cost more to collect the bills than they were worth; and in others, payment has been meanly evaded, or, for some trifling or unjust cause, totally refused—again, on a few occasions where renewals were declined, the numbers would be sent back so mutilated as to be worthless. The publishers are disposed to conduct their paper on the most liberal terms possible; but their readers will at once see that so long as the subscription is continued at the low price of only one dollar a year, the whole of this little sum would be absorbed by the trouble and loss attending collections. For this reason they respectfully say, that they cannot continue sending the paper hereafter unless the terms of payment in advance be strictly complied with—and in adhering to their rule, the subscriptions being so numerous, it would give them a great deal of extra trouble to make any exceptions whatever. It is hoped now that this explanation will be satisfactory to all concerned. The publishers have the pleasure of adding, that their subscription list has been steadily on the increase since the first start of the Agriculturist, and that its prospects were never so flattering as at this moment; and it will be their constant endeavor, both in its matter and embellishments, to make it more and more worthy the patronage of the public. They do not think it worth while to indulge in grandiloquent boasts, but prefer to let their work speak for itself, certain that its intrinsic merits will more highly commend it than anything they can add in its praise. Such has been the demand for the present volume, that two editions of the first numbers have already been exhausted, and we shall be compelled this month to go to press with a third.

CULTURE OF POTATOES.

WE rank the potato crop in the United States before wheat, and second only to that of corn, as constituting the food of the people and their domestic stock. How important then that the crop be a good one. We are not going to write an article now upon the particular culture of potatoes, as every farmer understands that sufficiently well for general purposes; but shall merely content ourselves with a few hints on the subject by way of guarding against the rot.

Whatever may be the cause of the rot in potatoes, there is no doubt in our mind, that the application of fresh barnyard manures and animal matter of any kind has a tendency to increase it; and we would therefore avoid the use of them on this crop for a few seasons, till the rot had in some measure disappeared, and apply the manure chiefly to grass and corn. For the potato crop, then, we would plow up a sod just after the grass had well started, and this, with the application of a little plaster, ashes, or guano on the hills near the stalks after the first time hoeing, will be sufficiently rich to produce a good crop. Potatoes raised on a sod are sweeter, more nutritious, and mealy, than those raised by the direct application of rank manures. Crops grown by the latter method are almost invariably watery, and tangy—are eaten with disgust, and have little nutriment in them. The best tasted potatoes we ever raised, and the largest crop obtained, were produced on a piece of sod where the grass had been permitted to grow up till the first week in June. It was then turned over flat, rolled, and harrowed lengthwise with the furrows, and the rows marked out three feet apart with a light one horse plow, running three inches deep, being careful not to disturb the sod. The seed was chosen of a medium size, dropped six inches apart in the row, and covered two inches deep with hoes. It was a field of about ten acres. No grass sprung up on it, and very few weeds were seen during the season. Just before the potato vines bloomed, a single horse plow was passed down and up each row, throwing the dirt to the vines, the men following with hoes and rapidly hilling them. In the fall they were dug with the plow, when the sod was found completely rotted, and pulverised beautifully. No doubt the unmolested growth of spring grass facilitated the decomposition of the sod, and added to the growth of the potatoes. The season was rather a wet one, which accelerates decomposition; had it been dry the sod would not have decomposed so well. The first week in June is sufficiently early to plant potatoes for winter and spring use. We have planted as late as the 3d of July and got fair crops, when a warm autumn followed; but this is too late for this climate, and we cannot recommend the practice. Early potatoes should be planted in April. Some think planting unripe seed prevents the rot.

Caution in the Use of Guano.—This manure, especially the Peruvian, is found to be so powerful, that it must be used with great caution. Any plant that it touches in a raw state it will *surely kill;* and it burns the leaves of everything which is watered by its solution. The safest mode of application is thus: Mix it in alternate layers, under cover where the rain cannot get at it, with ten or twenty times its quantity of any fine light, easily pulverized soil. Let it lie thus a week or ten days, or as much longer as one pleases. The soil with which it is mixed attracts and partially absorbs its most powerful salts. When it is wished to use this compost, toss it over carefully and mix it well. It may then be sown broadcast upon grass and grain; put in the hill with corn, potatoes, melons, &c., &c.; or around any crop immediately after the first time hoeing, and again just before the crop fruits. For a solution of guano, put one ounce only to a gallon of water, and then water carefully *around* and not *on* the plants. For steeping seeds previous to planting, four ounces may be enough for a gallon of water; though some say they have used a pound to a gallon with impunity. The African not being quite as strong as the Peruvian, 25 to 50 per cent. more of it may be used, according to the value of its analysis.

Mr. Prentice's Sale of Short Horn Cattle.—In this Number of our paper we give a complete catalogue of this superior herd of cattle. It will be seen that every animal Mr. Prentice owns is put in, and the sale will be positive, without reservation, let the animals bring what they may. There was never such an opportunity offered before in this country to obtain choice animals; and to sell without reserve, we believe, has never been done in England. As we intend being present at the sale, we offer our services in purchasing for such of our friends as may find it inconvenient to attend and bid for themselves. Any instructions they may please to give as to choice of animals, and prices at which to purchase, they may depend upon being faithfully executed.

RAISING PORK.

Every farmer knows full well that if he has to winter his pigs, even in the most fertile of corn countries, and cannot get over three cents per pound for the pork, he is losing money; how important then that he keeps such a breed of swine, and feeds them so well, that he can bring the pigs, dropped early in the spring, to weigh from 200 to 300 lbs., in December and January. Let people say what they will about the necessity of having old hogs to make a thick cut of clear pork on the ribs for packing, we know this is all *gammon.* We have seen many a pig fed well from his birth, that would weigh full 250 lbs., and cut four inches thick of clear pork on his sides, at nine to ten months old; and have heard of others weighing 300 lbs., and cutting five inches. Now this is all that is necessary for the navy or Boston fishermen, and more than is desirable by consumers in general. Our best market for pork is England, and the people there prefer it from hogs weighing not over 175 to 200 lbs., and like the lean well mixed with the fat. We would never winter anything but breeders of the swine family, and the moment the pigs were dropped we would commence shoving them with feed till ready for the knife. The farmer who pursues this course will make from 30 to 60 per cent. more on his pork than those who winter their spring pigs. As for autumn pigs, we would not have them. Let the sows breed but once a year.

Three or four years ago we prophesied that the low price of pork would soon make it scarce, and now it is a fact; and by and by, when choice boars will be wanted to improve the breed, they cannot be had, for our farmers are growing careless again in their stock, and breeding helter skelter in every direction. A *pig is getting to be a pig once more* with them—long nose or short—sharp back or round. We advise all those who have good hogs to keep them so. Don't sell and fat the best, keep them for breeders, and fat and sell the poorest. In this way one will be continually improving, and in any event he will have a good breed on hand, always ready for his own use and the benefit of a careless neighbor.

PLANT NEITHER TOO CLOSE NOR TOO FAR APART.

There is a happy medium in all things, which it behooves a good farmer to study in planting his various crops. If he plants too far apart, weeds are more certain to take the place of the crop, and he does not get that return from his land and labor which he should do. On the contrary, if he plants too close, there is a continued struggle between the roots of the plants for their food below ground, and their branches and leaves for pure air, and an opportunity of absorbing nourishment from it above ground. The consequence is, that the roots get dry and sticky, and the leaves soft, moist, and weak; they become unhealthy, are covered with mould, or are destroyed by insects. For this reason we are much opposed to sowing anything broadcast which can be drilled. Corn for fodder has been found almost invariably to yield a much larger quantity of stalks and ears in drills than broadcast; the same principle holds good with turnips and other roots; and wheat in drills is not near as liable to rust and mildew as when sown broadcast. Particular regard should be had to this matter in cultivating cabbage, cauliflower, and broccoli. Blight, mould, and lice, and other insects, are sure to attack these vegetables when planted too thick; they must have room to pasture their roots in the earth below, and to breathe fresh air in their lungs (the leaves) above, or they will become sick, diseased, and die. There can be no rule for distances—the farmer must be his own judge in these matters. Dwarf Canada corn may be planted for a crop of grain two feet apart, while the tall Virginia must stand at least four. The plants of the delicate little Savoy cabbage may be within a foot of each other, while the large Bergen is crowded if it has not two feet each way to stretch its burly proportions.

THE ROLLER.

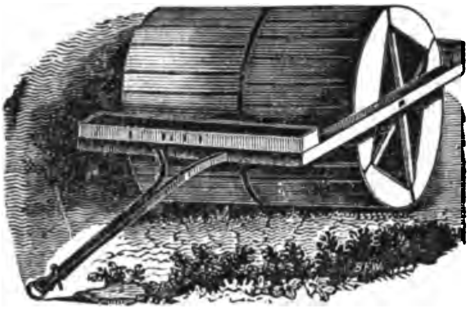

Fig. 36.

It is surprising that so little attention is paid to the use of so serviceable an implement as the roller. It tends to bind a sandy soil, and finely pulverizes the lumps of that of the most adhesive clay. In passing it over recent sown crops, it has a tendency to keep out insects, especially from the turnip crop, as it binds the surface so close that they are not likely to penetrate it. It should always be used after seeding down meadows, as it leaves a much smoother and more level surface for the scythe and rake to pass over. It would be well to pass it over meadows every spring, in order to roll down any upheavings from the frost or poaching of the cattle.

A roller may be made in the most simple manner, from a smooth round white-oak log, 20 to 30 inches diameter. Saw off the ends perpendicular with the surface of the log, and then insert iron gudgeons of about an inch and a half or two inches diameter, and for these to roll in, make a square frame of 4 by 6 inch stuff, boring holes to fit the gudgeons in the side pieces. These are held together by cross pieces, one of which is placed immediately before and the other directly behind the roller. When the roller is made of only one piece, it is hard turning it round at the end of the field; it should therefore be in two distinct cylinders, as shown in the cut. In turning, one then rolls back, while the other moves forward. Three cylinders we have found still better than two, and easier to wheel round. Rollers are usually made in this city of cast iron, two to three feet in diameter, or like the drums for belts to run on to move machinery; that is, narrow segments of wood are fastened on to iron circles. These are much the neatest, and they last a long time. They cost from $20 to $40, dependent on their size and the finish bestowed on them. Four to five feet is the most convenient length, though some make them six to eight. A box is attached to the frame, either over or behind the roller, into which weights are thrown for the purpose of tempering the pressure, as more or less is required according to the facility of crushing the clods and pulverizing the soil. The ground should always be dry when the roller is used, especially in a soil where there is the slightest admixture of clay, otherwise it would so bind the ground together that the crop would find it difficult to shoot up through the surface after germinating.

SHEEP INQUIRIES.

We believe it will be acknowledged that no agricultural journal of the day has gathered together, through the favor of its correspondents, so numerous and valuable a series of articles on sheep husbandry as can be found in the volumes of the Agriculturist. These have been widely copied, and read with interest, and as we are pleased to learn, have effected much good. We wish to pursue this subject still further; and that we may be able to obtain the most reliable information, we earnestly request particular answers to as many of the following inquiries as our readers can answer satisfactorily after shearing their present crop of wool. It is desired that no mixed or grade animal of any description be included in those upon which answers are predicated.

1. How many sheep have you of an improved, *definite, pure breed?* What breed is it? Specify this, and from what English, Spanish, Saxon, or other foreign flock it was derived; the time when it was taken from it, and the characteristics of the breed at that time.

2. What has been the change in the sheep since imported? How have they been managed and bred, and what is their precise present character?

3. What is the present mode of feeding as to quantity and kinds of hay, grass, roots, grain, &c.?

4. At what age do the ewes and rams breed? and how many lambs are averaged to the whole breeding ewes annually? What is the management with breeding ewes and rams, and the lambs?

5. What is the average dead and live weight of ewes, wethers, and rams; also of lambs at 3, 6, 9, and 12 months old? What is the price and weight of the mutton and the tallow by themselves, and *average* weight and largest weight of the whole sheep? In what respects does the quality differ from other mutton? What is the value of the pelts?

6. What was the average weight of fleece at the last or any shearing, washed or unwashed? What was the mode of washing? Specify the number of rams, ewes, wethers, and shorn lambs, that made up the flock, or give weight of each class by themselves. Specify the number of lambs brought up last season by the ewes, and mode of feeding the flock for the year preceding shearing.

7. What was the average price of the wool taken from the pure flock (minutiæ are not objectionable), and where was it sold?

8. What is the average consumption of pure breed sheep (specifying the breed) in comparison with any other breeds you know?

9. What diseases are most prevalent among your flocks, and what are the remedies for the same?

USE OF INFERIOR FARM IMPLEMENTS.

We lately saw one of the old-fashioned plows, at the establishment of one of our largest plow manufacturers. On inquiry, we found that it was a pattern on which the proprietors commenced their business some 15 or 20 years ago; and, although a very good plow, for that period, it is superseded among all intelligent farmers, by other and more recently-constructed patterns, which will do the same work, and with at least a quarter less labor.

We found that the single reason of its now being employed, in preference to others, with most of those using it is, that it has a point, or share, of cast iron, costing some 15 cents each, which admits of being worn out at both ends, instead of one end only, as those now constructed. The saving of 7½ cents, in this share, determines its use; and this is saved at an additional expenditure of team power, costing not less than 25 to 50 cents per day, which by the time the share is worn out, would amount to from $5 to $50, according to the soil. Such wiseacres are never guilty of taking nor reading agricultural papers, to teach them a better system of economy.

ORNAMENTAL FOUNTAINS.

In viewing a spouting fountain, we are only surprised by the elevation to which the water is thrown; but perpendicular columns of water have but little pretence to beauty, particularly when a jet rises from a naked tube in the middle of a basin or canal, and the water falling on its smooth surface, appears unnatural without being artificially grand. Some are so constructed, that their ajutages throw up the water in the form of sheaves, fans, showers, to support balls, &c. Others to throw it out horizontally, or in curved lines, according to the taste of the designer; but the most usual form is a simple opening to throw the spout, or jet, upright. The grandest jet of any is a perpendicular column issuing from a rocky base, on which the water falling produces a double effect both of sound and visual display. Drooping fountains, or such as bubbling from their source trickle over the edge of rocks, shells, or vases, combining the cascade with the fountain, are capable of much greater beauty.

Whatever be the direction of the jet, the discharge of water is always the same, provided that the altitude of the reservoir be the same. This is a necessary consequence of the equal pressure of fluids in all directions. Water, spouting from a small ajutage, has sufficient velocity to carry it to the same height as the water in the reservoir; but it never attains entirely this height, being prevented by various concurring causes. 1st. Friction in the tubes. 2d. Friction against the circumference of the aperture. 3d. The resistance of the air, its weight obstructing the rising column.

Mr. Loudon justly observes, that it is not easy to lay down data on this head; if the bore of the ajutage be too small, the rising stream will want sufficient weight and power to divide the air, and so being dashed against it, will fall down in vapor, or mist. If too large, it will not rise at all. The length of pipe between the reservoir and jet will also impede its rising in a slight degree, by the friction of the water on the pipe. This is estimated at one foot for every hundred yards from the reservoir. The proportion which this author gives to the ajutages, relatively to the conducting pipes, is one fourth; and thus for a jet of four lines, a conducting pipe of an inch and a half diameter; for a jet of six or seven lines, a conducting pipe of two inches, and so on. From these data, the height of the fountain, and the diameter of the conducting pipe being given, the height to which a jet can be forced can be estimated with tolerable accuracy.

The following are a few of the most powerful fountains in Europe, with the perpendicular height to which the water is thrown:—

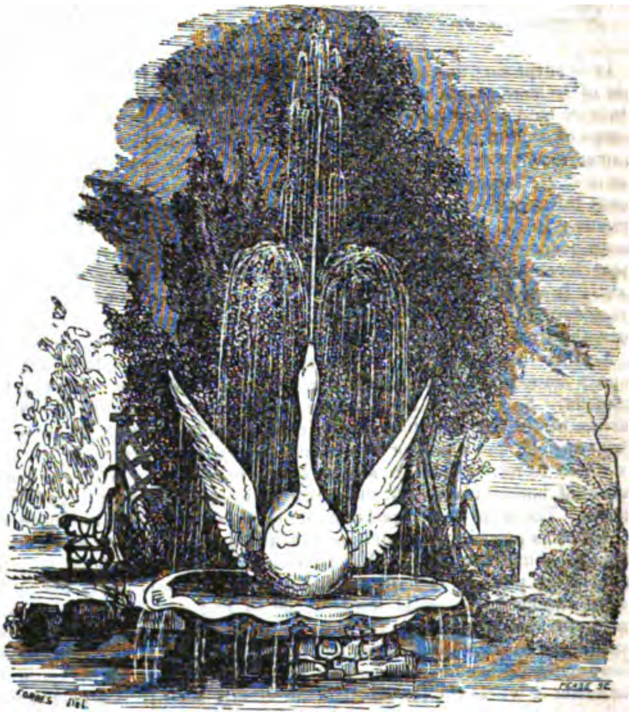

Fig. 44.

	Feet
The Emperor fountain, at the seat of the Duke of Devonshire, Chatsworth, -	267
Wilhemhœhe fountain, in Hesse Cassel, -	190
Fountain at St. Cloud, France, - -	160
Peterhoff fountain, Russia, - - -	120
Fountain at Versailles, France, - -	90

CULTIVATION OF BROOM CORN.

Soil.—The best soil for raising broom corn, is similar to that required for Indian corn or maize. It should be rich, warm, loamy land, not liable to early or late frosts. Spring frosts injure broom corn more than maize, as the roots do not strike so deep, nor has it the power of recovering from the effects of frost equal to the latter. The best crops are usually raised on a green sward, turned over as late as possible in the fall, so as to kill all the worms. Clay lands are not suitable for it.

Manure.—Hog or sheep manure is best, and rotten better than unfermented. If the land is in good condition, three cords, or eight loads of manure to the acre is sufficient. This is usually placed in hills: 12 to 15 bushels leached or unleached ashes per acre may be added with great advantage. Plaster is beneficial at the rate of two to four bushels per acre. The addition of slacked lime helps the ground, affords food to the crop, and is destructive to worms. Poudrette at the rate of a gill or so to each hill at planting, or guano at the rate of a heaping tablespoonful per hill, if the African, or two-thirds the quantity if Peruvian, mixed into a compost with ten times its quantity of good soil, is an excellent application, especially if the land is not in very good heart. To repeat either of the above around the stalks on each hill after the last hoeing will add materially to the crop.

Planting.—It should be planted in hills—not drills—two feet apart, in rows two and a half to three feet apart. If the seed is good, 15 to 20 seeds to a hill are enough; if not, put in sufficient to ensure eight or ten thrifty plants, which are all that require to be left for each hill. Time of planting must depend on climate and season. The 1st of May is time for planting in latitude 40°, and 10th to 15th in 42°, but as early as possible, yet late enough to avoid spring frost is best. The ground should be thoroughly harrowed and pulverised before planting. Thick planting gives the finest, toughest brush. Seed should be buried one to one and a half inches deep.

After Culture.—As soon as the plants are visible, run a cultivator between the rows, and follow with a hand hoe. Many neglect this till the weeds get a start, which is highly prejudicial to the crop. The cultivator or a light plow should be used afterwards, followed with a hoe, and may be repeated four or five times with advantage.

Breaking the Tops.—This should be done before fully ripe, or when the seed is a little past the milk; or if frost appears, then immediately after it. This is done by bending over the tops of the rows towards each other, for the convenience of cutting afterwards. They should be broken some 13 inches below the brush, and allowed to hang till fully ripe, when it may be cut and carried under cover, and spread till thoroughly dried.

Disposal of Stalks.—The stalks remaining on the ground may be cut close or pulled up and buried in the furrows for manure, or burnt, and thus be restored to the earth to enrich it; or they may be carried to the barn yard to mix up in a compost, or with the droppings of the cattle.

Cleaning the Brush.—This is best done by hand, by passing it through a kind of hetchel, made by setting upright knives near enough together, or it may be cleaned by a long toothed currycomb. By the first method none of the little branches are broken, and the brush makes a finer, better broom. We have seen horse power mashines used for cleaning the seed with great rapidity, in the Miami valley.

Yield of Brush.—The average yield is about 500 lbs. of brush per acre. It varies according to season and soil, from 300 to 1,000 lbs. The price also varies materially, ranging from 3 to 16 cents per lb., the last seldom obtained unless in extreme scarcity.

Yield of Seed.—A good crop of seed is obtained in the Connecticut valley about two years out of five. When well matured, the seed will average 3 to 5 lbs. for every pound of the brush. A single acre has produced 150 bushels seed, though 25 to 50 is a more common yield. It weighs about 50 lbs. per bushel, and is usually sold at 25 to 35 cents. It is too heating for horses, but valuable for other stock, especially when ground. Some have informed us that for sheep and swine they consider it nearly equal to oats, but we are of opinion, in saying this, it is overrated.

On the Northampton (Massachusetts) meadows 1,500 acres of broom corn are frequently raised per annum, producing brush and seed to the value of $60,000 to $80,000. Some seasons the crop has been worth $100,000. It is now raised in large quantities in the rich valley of the Sciota, and other parts of Ohio. Quite a business is at present done at the west, in sending the brush to England, in order to supply that country with brooms. It is cleaned where raised, and shipped direct to London or Liverpool via New Orleans. The handles are made at the east and shipped from Boston or New York. Twine, wire, and labor being cheaper in England than here, the brooms are made up there and sold in large quantities. American brooms are much admired in Great Britain and Ireland, especially for carpet sweeping, they having nothing like or equal to them. Broom corn is not as exhausting a crop as Indian corn, unless the seed matures, and then it affords a full equivalent for exhaustion. At 6 cents per pound for brush, the former is as profitable to raise as the latter at $1 the bushel.

Farms in New Jersey.—A correspondent from Essex county thus writes us: This is a beautiful section of country, and there are many fine farms, in spite of all our neglect. A few are made so by the industrious husbandmen; and one thing I notice, the best farmers who make them so, do it without any heavy outlay of money. They get out all the manure from their barn-yards, sheds, and pig-sties in the spring, and then cast into the yard soil from the road-gutters, and muck from the swamp, putting as much in the sty as the hogs and pigs will work over during summer. With this they mix ashes, lime, or plaster, in the fall, for their grain crops, or let it remain in the yard for the following spring, thus making them large quantities of manure.

Scab in Sheep.—As I hear much said about the scab in sheep, I send you an account of the treatment of that disease in a flock of about 200, in 1834, that belonged to my father in New Hampshire. The flock had been diseased two years, and several remedies tried and failed. Many sheep died, and but few ewes raised their young. The cure was this: a decoction of tobacco and sulphur; 10 lbs. of good tobacco for 100 sheep, well mashed and steeped in about 16 gallons of water, to which was added 1 lb. sulphur

Each sheep was taken and put upon a bench or form, so fixed as to save the drippings of liquor from the washing, and rubbed with a hand-swab, made of some kind of cloth, wet in the decoction, being careful to moisten every part of the neck and body of the sheep. This was done immediately after shearing. The lambs also underwent the same washing; but the liquor was made a little weaker for them. Very few of the sheep appeared to be in the least degree sick from the operation. A few of the lambs were so for two or three hours. The washing ought to be done in the fore part of a warm day. The third day after washing, the sheep were salted with common salt, which was wet, and as much sulphur stirred in as would stick to the salt. This flock from this time began to gain, and the next season the fleeces from the same sheep were one-third heavier, and the lambs were healthy; and such seemed to be the benefit derived from the use of tobacco and sulphur, that it is not omitted being done to this time, every spring, only the decoction is made weaker. It keeps the ticks from sheep, and as yet we have not been troubled with any disease in the flock. P. W.

Plainfield, N. J.

DRAINING LAND.

I do not feel myself sufficiently qualified to give you any very elaborate treatise on this subject, neither do I conceive it necessary, as I fear it would be far less acceptable to the large body of *practical* farmers for whom I write, and whom I wish to benefit. But I propose simply to note a few facts, the result of my own observation and experience, on a subject which I conceive to be of vital importance to the farmer's interest. And as a very important branch of farming, one in which nearly all farmers are interested, I wish to particularize, and draw attention to a fact of no little consequence, what I have always conceived, and what *experience* has proved to be bad economy in farming, viz., *to suffer such vast quantities of our lowlands to lie in their natural state without draining.* Everybody knows that *standing water is death to all useful vegetation in this climate;* this fact of itself I hold to be sufficient proof of its decided utility. The draining of marshes and swamps, low meadow land and spongy soils, will tend much to ameliorate the climate of a country, and consequently render it more healthy; besides bringing into cultivation lands comparatively worthless, and rendering the influences of the atmosphere more favorable.

I shall not advise a trip to the everglades of Florida, or to the pestilential swamps of Western Africa, whose pestilential *malaria* sends forth the breath of death on every breeze that crosses its fatal bosom; but I wish the farmer to stay at home, look around his own domicil, at his own meadow, and see if he has not hitherto neglected this important branch of farming; let him commence the work of reformation in earnest, and then go to his neighbor and say, "go thou and do likewise." To reap advantages from draining, like other branches of farming, it must be well done. Cut good, wide, deep ditches into the subsoil, if there is descent enough to carry all the water off, but by no means so deep that you form a tank to hold water. If your neighbor's land is higher than yours, cut a deep ditch along the line fence, if practicable, and parallel with it, and thus arrest water that would otherwise flow on you, and irrigate land that would be better without it. Abandon the idea that by cutting so many ditches here and there, you are wasting just so much land, in taking up too much room with them; this impression is decidedly erroneous. By drying the remainder you render it more light and porous, easier of cultivation, and consequently more productive.

In the month of July last, I observed from my window two mowers cutting a small lot of coarse bog grass on land so wet that they could not keep dry feet. They complained of the crop as hardly worth the cutting, except perhaps for yard litter or very ordinary cow fodder. And well they may. Now these men are poor, and I know that this very hay helps to keep a horse through the winter, the most trying season in our climate for animals. And here I wish my readers to observe is one specimen of the very "bad economy of farming" alluded to above. Farmers well know that healthy and sound horses are entirely out of the question when kept on such miserable food. But enough of this, the ribs of the poor beast will speak for it in the spring.

Now I happen to know that this very identical spot of ground was thoroughly and effectually drained a few years ago, a good deep ditch being cut entirely around it; and that season, and the one following, the most valuable crop of grass was taken from it I ever knew before or since. To effect this, the draining was of course done early in the season, and the surplus water from the early rains—which had formerly been allowed to stand in puddles here and there, and sink in the soil by degrees, thereby completely saturating it—was then carried off by good and efficient ditches. But you ask, "Why has no good crop come from it since?" I will tell you, the matter is easily solved. The draining was done, and I am satisfied, *well* done; but this is not always sufficient. If farmers would be permanently benefited by draining land, they must keep the open ditches well cleared out, that the water may have a free passage, not only to pass off, but pass off quickly; and after a ditch is well opened, a little labor every season will suffice to keep it so. Now, in the above instance, the ditches were never opened but once, consequently they soon became filled up again; and the trouble is, the owner would rather *drain his glass of brandy* than his meadow, which kind of *draining* he understands perfectly; but allow me to add, that kind of draining won't answer for farmers, and if he had as effectually drained his meadow, a large increase of good hay would annually have been added to his store. Draining has done wonders for me, and I only wish the anti "book-farmers" and all doubting minds could visit my nursery, and *see* it, instead of hear tell of it. A few years ago I came into possession of a few acres of ground which were considered profitable for grazing only. It was a cold, neglected, stiff clay soil, with a retentive yellow clay subsoil, so wet that we often could not even *plow* the ground until after many of our neighbors had *planted* theirs. A very uninviting spot for a nursery, you will say. It really was, but it was the *best* we had, However, I had to make the *best* of it, and if every farmer would make the *best* of what he has, we should have far less complaining, less discontent, and less of the "*western mania.*"

I soon conceived the necessity of thorough and complete draining this wet field, and accordingly employed two hands and one head, which were those of *my own*, and set to work, cutting good wide ditches all around and through it, and set it to "bleeding at every pore;" making "blind ditches" of those that run across the lot, that I might plow over them. The result is, that I have now healthy and thrifty fruit trees growing on land that was much of it wet bog-holes, and we are enabled to cultivate it in good season, weeks earlier than ever before. A single fact will show the importance of draining such land. One ditch runs directly through a low marshy bog-hole (that was), cut deep into the subsoil, the pores of which were filled with water, and the deeper I went the more the water would ooze out. This very spot is now quite dry and mellow, beautiful to work in, and is the richest spot of ground on the whole nursery. My neighbor's land, which joins me, is higher than mine, and sloping towards it, consequently all the surface water is washed from his upon mine. This communication I cut off by making a ditch near and parallel with the line fence; this answers the desired purpose, and is a benefit to both of us. His land is so peculiarly situated that he can drain to little purpose, unless he turns his drains into mine, which have a free outlet. This I cheerfully allow him to do, and he is now draining to some extent, and intends to do much more. I do not conceive it necessary to lay down any very definite rules on paper for draining land; as, for instance, the length, breadth, or depth of a ditch; the direction in which it should run, &c., &c. Every farm is differently situated. One is high ground, perhaps, best suited for blind drains; another is low ground, and suited for open ditches. A certain course pursued on one farm will not answer for another. Every farmer in this, as well as everything else, should exercise his own judgment, and adapt his efforts to circumstances, then may success and prosperity attend him.

W. D.

Morristown, Morris Co., N. J., March 14, 1845.

REPORT OF THE AGRICULTURAL SURVEY OF SOUTH CAROLINA.—We have received a letter from Edmund Ruffin, Esq., of Virginia, stating that we were mistaken in part of our remarks, in noticing his Report, page 285, Vol. 3. He says, "the obvious inferences from these remarks are, that the close of my services was compelled by the repeal of the law authorizing their being employed; and that otherwise I would have continued to serve longer, as during the previous year. The reverse was true in both respects. When, without my solicitation or knowledge, I was offered the appointment of Agricultural and Geological Surveyor of the State, and before accepting the honorable charge, I distinctly stated in my answer to the Governor, that my time could not be so given longer than for one year. Accordingly, at the end of that year, I resigned the situation. Still the legal term of my service, as expressed in my commission, had been for two years, and the appropriation had been made at first for the full time. And neither was the law repealed, nor the appropriation withdrawn. My friend, M. Tuomey, Esq., was appointed to fill the vacated office, and he completed the unexpired year of my appointed term, devoting himself to the geological department of the survey, for which he is eminently fitted, as exclusively as I had done to the agricultural department. Further, when the full term of two years had been completed, and both the office and the appropriation had ceased, by their first enacted limitation, both were continued by new legislation; and the survey is still in progress and, as before, in the most worthy charge of Mr Tuomey."

We were led into the mistake above alluded to by Mr. Ruffin, by a paragraph in a South Carolina exchange paper, which we well recollect spoke very bitterly in its remarks on the niggardliness of the Legislature in providing funds for a continuation of the survey, and that Mr. Ruffin's services must consequently cease. We trust, therefore, we shall be pardoned the error we have unconsciously committed; we supposed the South Carolina paper good authority, and this is the first contradiction of it we have seen. Of course we publish it at once with great pleasure, for we own we were not only mortified, but very much surprised when we read the paragraph stating that the survey must cease. We always entertained a high opinion of the intelligence of the people of South Carolina, and more especially of its eminent citizens then holding offices; and it was this which caused the greater astonishment on our part at the supposed action of the Legislature.

BERMUDA AND COCOA GRASS AND SHEEP IN MISSISSIPPI.

Bermuda Grass.—The cultivation of this grass in the State of Mississippi, I look upon as one of the most important things that can be brought to the notice of the citizens of this State, and probably to most others of the Southern States, where the long continuation of a hot burning sun so completely dries up all other kinds of cultivated grasses, that at that season when grass for pasture or hay is most needed, they will be found more fit to burn than to afford green food; while with the Bermuda, the hotter the sun the more luxuriant the growth; affording not only the finest kind of summer pasture, but yielding an almost inconceivable quantity of excellent hay I am aware that to many of your readers my remarks upon this subject are entirely uninteresting; but I beg of them to consider that there are thousands of others who never saw a spear of this grass growing, and know nothing of its value. Mr. Affleck, of Washington, Miss, who is as well informed upon the subject perhaps as any other person, believes this to be identical with that which forms the beautiful green grassy banks of the river Ganges; and although here only known as Bermuda, that it originally came from the East instead of the West Indies. But be this as it may, it is to the South what Kentucky blue grass is to that State; yet, notwithstanding its vast importance, I have travelled over several counties in Mississippi where it was as completely unknown as if it had never left its original place upon the banks of the "holy river."

One reason why Bermuda grass spreads so slowly is, that it does not bear seed in this country, and consequently is propagated only by the roots and stalks, every joint of which, however, will send up a shoot, and as it grows extends itself with astonishing rapidity both above and below the surface. If set out upon a piece of ground in hills, two feet apart each way, it will spread over the whole ground in one season. Or it may be set in an easier and more expeditious manner, by taking up the sods and chopping them into small pieces, and sowing them over the ground and covering them with a plow or harrow. The tenacity of life in it is so great, that some people object to admit it upon their land, for fear that they never could get rid of it again. In fact, it would seem that they would prefer to see their land taking its rapid course down the millions of gullies through which some of the finest soil in the world is sweeping its way rapidly towards the Gulf of Mexico, rather than risk the trouble of getting this grass into their cultivated fields.

I grant that this grass is a troublesome customer among corn and cotton; but a crop or two of peas will exterminate it, as it cannot live in a dense shade, and that is what adds to its value. *It grows the best in the hottest sun*, no matter whether on wet or dry soil, hill or dale; keep it free of shade, and it will afford more pasturage or hay than any other cultivated grass in a southern clime. In addition to its invaluable quality for food for stock, whether green or dry, it has in Mississippi another and still greater value. For be it known, this is *the land of gullies.* That the whole of the hill counties have not already floated away, is only because the land has been held together by cane and other roots, which all decay as the land becomes cultivated; and even now before the stumps of the original forest have disappeared from the ground, thousands and tens of thousands of acres have become so gullied that their cultivation is abandoned, and in many cases large tracts are turned out to the common as past all profitable use, and considered by the owners as almost valueless; while the annual accumulation of these waste acres under the present system of cultivation is perfectly astounding to one who has been accustomed to seeing better management. Now the very worst of these waste gullies can be reclaimed into the best of pasture, and the further waste prevented by Bermuda grass alone, and that in one, or at furthest, two years. It will even adhere to the perpendicular sides of banks, and in the bottom of ditches it will grow and collect the wash, and again grow up through the accumulating dirt, and again collect another coat of wash, so that it not only prevents the further waste, but in a measure will fill up many of the smaller gullies already formed.

The Bermuda is an exceedingly valuable grass, and ought to be cultivated universally upon road-sides, embankments of canals, railroads, and levees, to bind them together and prevent their washing away. It is now to be found in the greatest abundance around Natchez and through the hilly land of Adams county. It is also abundant around Vicksburgh, and is considerably spread through several of the river counties of the lower part of the State. Its cultivation ought to be encouraged and extended through every county of this State, as well as all the other Southern States. I do most earnestly recommend every one of your southern readers to take immediate steps to procure a start of this grass, and if they can procure but a single root to begin with, be sure to get that, and they will soon be able to get a stock from which they can in a few years make the most valuable pasture of any other in the south.

Cocoa Grass.—There is another grass that is greatly despised and dreaded here, because, when it takes possession of the land, it can no longer be cultivated in cotton, and not well in anything else. This is the bitter Cocoa. That it is destructive to cultivation I will not dispute; but that the land should be abandoned, as it often is, on account of it, and suffered to go to waste, I shall dispute; because it will take a world of argument and some experience to convince me that a cocoa plantation cannot be made more profitable than a cotton plantation. Throughout all the heat of summer it affords an abundance of most luxuriant pasturage; and throughout the winter it not only affords an inexhaustible supply of food for hogs, but they will actually become fat upon the nut-like roots. In addition to this, it can be plowed up in the fall and sowed with rye or winter oats, making the same ground carry a most abundant coat of rich pasturage throughout the year, excepting the few days required to sow the grain and leave it to germinate. Now is this the curse that it is generally accounted here? or is it not rather a blessing sent to drive this cotton crazy community into a system of husbandry that will produce wool almost as cheap per pound as cotton?

Other Grasses.—In addition to the above grasses, there are two kinds of winter grass that afford pasturage all winter, to say nothing of a kind of parsley, called chickweed, that clothes the fields in one of the richest coats of pasturage several of the winter months; while no one who has contended in the cotton crop with the undying crab grass, as well as nimblewill, &c., &c., will dispute the fact, that even without the aid of the unfailing Bermuda grass, they could find feed for sheep in summer.

Wool in Mississippi.—Now, in this view of facts, is not Mississippi as well situated for a wool growing country as it is for cotton growing; and instead of grumbling at low prices, cursing the cocoa where it has already taken possession of the land, and looking at its onward march with dread; or witnessing the yearly washing away into gullies of field after field; would it not be more rational and advisable to begin in time to prepare for raising another kind of staple than cotton? And now, ye kind-hearted Mississippians, from whom I have received so many welcomes, and derived the information that has enabled and induced me to give you this advice, don't forget that it is given in all good-will by your old friend SOLON ROBINSON, now at Log Hall, Hinds Co., Miss.

March 21, 1845.

P. S. Since writing the above, I have read the article in your March Number upon Bermuda grass. The description given corresponds with the specimens now before me. Dr. Phillips (at whose house I now am) has grass from Natchez and Cuba which are identical. But instead of "spikes four and five," they are three, four and five, and he thinks he has seen six. Dr. Phillips also says that in a conversation which he has just had with Dr. Naylor, of Warren county, he was assured by that gentleman that he has cultivated land upon his place for four years that was well set in Bermuda grass; and, although he does not exterminate it, that it gives him no serious difficulty in cultivation, and he thinks it is far more dreaded than it should be.

NEW ENGLAND EMIGRATION.

The spirit of emigration so rife in New England, tending as it has, within the last fifteen or twenty years, to concentrate the lands in the hands of a few, is producing a great and deleterious influence on their agricultural interests, and operating against those improvements which are advocated by all enlightened agriculturists of the present day. I have been led to this conclusion in viewing the half-cultivated and neglected land that abounds in almost every part of New England, and it has induced me to make a few suggestions on the subject of emigration, with the hope that some more experienced person may be disposed to examine it, and give his views of its effect on agriculture.

All who are conversant with the habits of the people of New England, have observed their disposition to rove over the face of the globe. So true is this, that no country or island can be visited where a son of New England has not penetrated. The wilds of the west, the deserts of the east, the icy shores of the north, the luxuriant lands of the south, and the savage islands of the ocean, all have representatives from "the land of the pilgrims" dwelling in their midst. It seems to be an inbred principle with them, to tread where civilized man never trod before. Their fathers set the example in leaving their homes in Europe to come to the wilderness of America; and verily the mantle has fallen on the sons.

A large proportion of the young men of New England, who have been trained to agricultural pursuits, are leaving their homes and emigrating to the west in pursuit of a fortune. They look upon the west as an *El Dorado*, where everything is to be gained and nothing can be lost; alas! how many, after struggling for years to find it, are doomed to disappointment. Go into any of our villages and ask, "Where are all your young men?" and the response will be, "Gone to the west; they could not be induced to stay at home and improve our 'worn-out lands,' when the west was open to them as 'a land flowing with milk and honey.'" Westward the tide of emigration makes its way, and what can be done to stay its progress? All classes seem to look upon a home at the west as the greatest earthly possession. A man that can be contented to stay at home and cultivate a farm, with all the natural advantages its location gives him for a market, is thought by many to be weak-minded. It is this infatuation for the west, causing many to sell their farms that they may emigrate, which throws so much land into the possession of comparatively few individuals, not leaving enough engaged in agriculture to cultivate them in a proper manner. They are furthermore crippled by the fact, that in most cases those who purchase them, instead of being able to return to the land a proper share of what is taken from it, must send it to the west to pay for the very land they are not able to improve. The land at the east is impoverished to improve the land at the west.

None can deny that the west holds out great temptations to the farmer who has become disheartened and tired of working the impoverished land of New England, in the cheapness of the land and the fertility of the soil; yet still I doubt whether these inducements overbalance the advantages, all things considered, a farm at the east possesses. Probably two-thirds of those who have emigrated west could have made more money at home, with the same amount of labor and privation they there endure, if money be their object. If education and social privileges are brought into the account, the east possesses every advantage over the west.

If the land be higher and the soil not so rich at the east, the farmer does not require so much of the former, and the latter can be made as fertile as they wish, if they will use the knowledge placed before them. Here the farmer has a ready market for all he can raise, at much higher prices than at the west; and as manufactories increase, the demand is more than the supply. The eastern farmer has an advantage in being able to purchase cheaper all he wishes to buy, in consequence of the saving of transportation. The agricultural products of the west must necessarily seek a distant market, and articles that cannot be produced there must be returned in exchange. The transportation, commissions, &c., thus operate as a bounty in favor of the east—forcing the western farmer to sell cheaper and buy dearer than his eastern neighbor. By reference to the prices of agricultural staples, I find that they are from 25 to 50 per cent. less at the west than at the east, so that though their crops are more abundant, they do not in fact realize as much in proportion for them; and when they add the cost of clearing the land, the difference in price of labor and agricultural implements, the heavy taxes for farm buildings, fences, roads, school-houses, churches, and other improvements that are necessary in all new States, emigrants will find their land has cost them nearly or quite as much as it does in the Eastern States.

The land in New England is not so poor and worn out as many have been led to suppose. It is true, it has been cultivated for a long time, but is that a sufficient reason for its not yielding more abundantly? Old England has been longer under cultivation, yet they find no difficulty in producing the largest crops ever raised in any country, because they cultivate their lands on scientific principles; and when the farmers of New England go and do likewise, they will find their lands bringing forth abundantly. If any doubt it, a trial will convince them that *poor* New England can still produce large crops. (For proof of this assertion, see article on "Improved Farming," vol. 3, p. 248 of the Agriculturist.) The sun shines as genially, and the showers are as abundant as they ever were; large crops *have been* raised; what, then, is in the way of our farmers' success? It wants the sons to stay at home and study theoretical and practical farming, with a determination that they will do their duty; then we should not hear the land evil spoken of, or so many complaints of the necessity of emigrating to make a living. Some of the farmers of Connecticut are now receiving from $400 to $500 an acre by the cultivation of tobacco, and other crops may be made to pay as well.

Another class of the sons of our farmers are not contented to gain their living by the sweat of their brow, but they must play the *gentleman*, or crowd our cities as clerks in stores, or other occupations they consider more *genteel*—there is not enough respectability in the business of a farmer to suit them. They look upon farming as degrading, instead of being, as the beloved Washington designated it, "the most healthful, the most useful, and the most noble employment of man." This ought not so to se. I trust that a brighter day will dawn upon us, when State and county agricultural societies are formed throughout our land. They are beginning to wake up the farmer to the importance of scientific agricultural knowledge in the cultivation of land. The shows and meetings of the societies tend to diffuse practical information among them, and incite them to study the best methods of using their manures, and what manures they should use on their different soils to produce the best crops, and such other agricultural information as they need, leading them to expect greater results as the reward for their labor from year to year. Much has been accomplished in the few last years by the aid of these societies in raising the standard of agriculture; but there is still a greater work to be performed by the agriculturists of our land, before it will occupy the high position to which it is entitled. Let us see to it, that New England has the honor of being first in *this* as well as other enterprises.

Middletown, Ct. S. C. Charles.

SHEEP HUSBANDRY IN KENTUCKY.

I am highly gratified at the various indications I have observed in the American Agriculturist, of a disposition favorable to an extension of sheep husbandry in the United States. This is a subject in which I have always taken a deep interest, because I believe it will not only greatly promote the agricultural interest, but tend, in an eminent degree, to advance the wealth and prosperity of the whole Union. The difficulty of finding an *adequate* market for our rapidly increasing agricultural products, renders it necessary that we should avail ourselves of as many new sources for the *profitable* employment of *land* and *labor* as possible. Nothing, in our present circumstances, is better calculated for this purpose than sheep husbandry. We have *land* in great abundance, whilst *labor* is comparatively scarce. Sheep husbandry requires much land, and is attended with the advantage of requiring *comparativly* few laborers; and instead of exhausting, tends greatly to fertilize the land thus appropriated. Sheep husbandry may be practised in almost every part of our extensive country, but doubtless some portions of it are better adapted to the business, and it can be carried on more economically, than in others. Without pretending to speak disparagingly of other parts, allow me to set forth the claims of Kentucky as eminently adapted to this highly useful branch of agriculture. To illustrate its fitness for this purpose, suffer me to refer to my own practice in a small way.

For some years after I commenced raising sheep (my cleared land and pastures being then very limited), I *housed them* during the winter months, and fed them with hay, sheaf oats, and occasionally with corn. But when my cleared land and pastures became more extensive, I found that I could winter my sheep to better advantage by suffering them to run on blue grass pastures, kept in reserve for them, hauling out and scattering on the turf corn fodder, when the grass became too short, or was covered with snow. This mode of feeding required less labor, and was less expensive, than housing them; and experience soon taught me that my sheep passed through the winter in better condition than when housed, and fed on hay and grain.

I have now about 300 acres of cleared land; nearly one half of which is in meadow, clover and blue grass—*poa pratensis;* and the other half reserved for cultivation in corn, wheat, hemp, &c.; and 150 acres in wood land, the greater part well cleared up and sown in blue grass. I have been taught by experience, recently, that sheep will do remarkably well on the rankest clover, which will enable me in future to keep more of my blue grass pastures in reserve for winter feeding. During the last fall (the season being favorable), my clover fields furnished my flock, of somewhat less than 400, sufficient pasturage till the month of January; and they have been since kept on my blue grass pastures, without the necessity of feeding, except some four or five days when the ground was covered with snow; and there is still grass enough to carry them through the residue of the winter.

The low price of hemp, and agricultural products generally, has induced me to sow down much of my cleared land in clover, which will enable me to keep double the number of sheep I now have, without interfering with my farming operations; and when I get the whole of my woodland cleared up and set in blue grass, I expect to extend my flock to 1000 sheep. Thus you see we are neither under the necessity of incurring the expense of *erecting buildings* to shelter our sheep, nor of raising *grain or hay* for their food; nor even to employ laborers to feed them, except during the short time it may become necessary to haul out fodder for them, when the ground is covered with snow. And in a single day enough may be hauled out on sleds to last them a week or more.

It is argued by some that our rich lands are too valuable to be appropriated advantageously to sheep husbandry. There would be much force in this objection if they were entirely appropriated to that purpose. But not so when sheep husbandry is combined with large hemp and corn crops. Hemp has hitherto been a profitable crop, though now it is too low to justify its extensive culture; and large corn crops are necessary with a view of raising horses, mules, cattle, and hogs. There is no system of husbandry so well calculated to prepare our lands for large products of corn and hemp, as feeding sheep on our clover lands. I had supposed, till I made the experiment, that sheep would not do well on rank clover (a). To satisfy myself on this point, I put about 150 wethers on a clover field, when in flower, early in May. The clover was at the time nearly as high as the sheep's backs (Merinos). I kept them on this during the whole summer, and in the fall they were fat enough for the butcher. It is true they trod down much of the clover; but, as I had an abundance of pasture, this was an advantage, as it left a thick mat of grass on the ground, intermingled with the droppings of the sheep, distributed with much regularity. This thick covering prevented a loss of manure by washing rains, and rapidly brought on a second growth of clover, which furnished my whole flock with an abundance of pasture till the early part of January. The season was, however, unusually favorable, and hence the clover pastures lasted two or three weeks later than usual. In future I intend to keep my sheep entirely on my clover fields from the time they are in flower, and thus I shall be able to keep in reserve a greater supply of blue grass for winter feeding.

But it is not upon our high priced rich lands alone that we can carry on sheep husbandry to advantage. Kentucky has a belt of hill and mountain country, bordering on the Virginia line, on the east, and on the rich lands of the State on the west, averaging about 75 miles in width, extending from the Ohio river and Big Sandy, latitude 38° 40′, to the Tennessee line, 36° 30′ north. The whole of this region is admirably adapted to sheep husbandry. The most northern part but a few minutes north of my residence, and extending about two degrees farther south. The lands are very cheap, the State price of those not yet appropriated only five cents per acre, and those purchased second-handed, more or less improved, may be had from 25 to 50 cents per acre and still less when unimproved. This country, in a state of nature, furnishes, during the spring, summer, and fall months, a fine range for sheep, and is susceptible of great improvement by clearing up and sowing the cultivated grasses for winter feeding. This whole country is finely adapted to the Spanish mode of sheep husbandry. Very large flocks might be driven to the mountain region, some thirty to sixty miles from the rich lands, immediately after shearing time, grazed till late in the fall, and then brought back to be sustained, during the winter, on the luxuriant blue grass pastures of the rich lands of the interior.

A very intelligent friend, residing in the southern part of the above district of country, speaks of it in the following terms: "One of the strongest proofs of this region of country being favorable to the growing of sheep stock is, that we are situated in the same degree of north latitude with the sheep-raising parts of Spain—Leon, Estremadura, Old Castile, &c.—only that our mountains are more richly and abundantly clad with luxuriant wild grasses and fern, pea vine and shrubbery, than the mountain regions of Spain, where they raise such abundant stocks of sheep. Wayne county, with a few adjoining counties, affords more fine water power than any country of the same extent that I have ever known; and for health and fine pure drinking water, no country excels it on the face of the globe. Now is the time to commence the business of sheep husbandry, whilst land can be got almost for nothing. It is worthy of remark that our sheep, which are suffered to roam and graze in the mountains altogether, produce about ONE FOURTH *more wool at a shearing than the sheep that are raised and grazed altogether on our farms, and of a* MUCH BETTER QUALITY!" In another part of his letter he says, "the tops of the mountains of Spain are sterile, without verdure, producing no food for sheep or other animals to graze on; our mountains are quite different; they are thickly clad from bottom to top, and all over the top, with fine rich wild grasses and shrubbery of every variety for stock to graze on. In the midst of our mountains are to be found a great abundance of salt water, and stone coal of the finest quality, together with a great variety of mineral waters and pure springs."

Another friend, residing in Knox county, writes to me, "My sheep upon my farm, adjoining Barboursville, do not thrive, even with pasture and winter food, like the sheep in the extremities of the county, which have neither pastures nor winter food, *except what they get in the woods.* Without cultivated grasses of any description, sheep will live and do well *all the winter, subsisting on the spontaneous growth of the country.*"

Another friend, residing in the northern portion of the above described mountain region, writes that "the counties of Carter and Lawrence, and the eastern portion of the State, are admirably adapted to sheep husbandry. There are several flocks of sheep in this neighborhood that thrive and increase wonderfully, *running at large*, at little cost or trouble to the owners Many flocks have no other reliance, during the winter, *but what they get in the woods.* The great advantages of this country for sheep husbandry is, the cheapness of the land, its adaptation to grasses, grain, and roots, its healthfulness—sheep delight in mountain or hilly land—the natural evergreens and shrubbery upon which sheep can feed and subsist in winter, though it is not safe to rely altogether upon these."

I could give many other extracts from letters addressed to me by highly intelligent gentlemen, residing in the mountain districts above described, to show its admirable adaptation to sheep husbandry; but I refrain from doing so for fear of running this communication to too great a length.

There is also a strip of low priced land bordering on the Ohio river, in the counties of Bracken, Pendleton, Campbell, Kenton, and from thence to Louisville, finely adapted to sheep husbandry; but I have not space to go into a description of it.

A few remarks as to the probable future market for wool will conclude my letter, already, I fear, too long. The returns of the late census show that the number of sheep in the United States in 1840 was a fraction less than 20,000,000. Twice this number would probably not furnish more wool than would be needed by a population of 17,000,000, if we were to manufacture all our own blankets, carpets, and every other description of woollen fabrics. The period is not very distant when this will be done, with the exception of some very fine goods. We shall then need about 100,000,000 pounds of wool for a population of 17,000,000, and in that proportion for home consumption, even supposing none should be exported. Now as our population increases, as past experience demonstrates, at a compound ratio of three per cent. per annum, we shall have a population of 34,000,000 in the year 1864; 51,000,000 in 1878; and 60,000,000 in 1888.* We shall need at these respective periods, two, three, and four hundred millions of pounds of wool. If we estimate sheep, upon an average, to produce 2¼ lbs. of wool per head, we shall require in the year 1888, a little more than forty years hence, 160,000,000 of sheep. This view of the subject, without looking to a foreign market, holds out a strong inducement to engage in sheep husbandry.

A. BEATTY.

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(*a*) Feeding sheep on clover, especially when fatting them, is quite a common practice in Europe, and in the northern States of America. They do extremely well upon it, and if accustomed to it gradually, there is no fear of hoven, the only thing to dread from rank clover pasture. By good feeding sheep may be pushed forward in their growth and breeding one year; they will, moreover, be larger and finer in the carcase, and produce a greater weight of wool and that of a superior quality.

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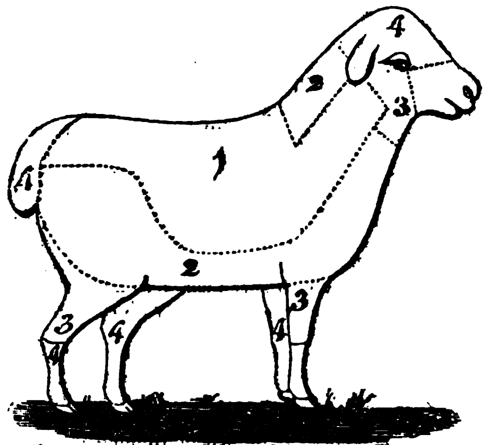
* See a table of population, by an annual increment of 3 per cent., Niles' National Register, January 11th, 1843, p. 300.

SHEEP HUSBANDRY IN SPAIN.—No. 5.



EXPLANATION OF WOOL SORTING. FIG. 41.

1. *Refina*, or 1st quality.
2. *Fina*, or 2d do.
3. *Tercera*, or 3d do.
4. *Cayda*, or refuse.

The sheep and shearers being dispatched, the first thing to be done is, to weigh and pack up the fleeces, and convey them entire to a place to be scoured, if they are to go out of the kingdom, or to any considerable distance within it; for, as the wool is said never to lose less than half of its weight in the operation of scouring, and often more when the sweating has been violent, at least one half of the expense of transportation is saved. As soon as the wool reaches the scouring places, it is given to the "Apartadores," whose business it is to separate it into three parcels of different qualities, as denoted by the above diagram. That taken from the back, flanks, and sides of the neck of the sheep is regarded as of the 1*st quality;* that from the breast, belly, sides of the haunches, and from the back part of the neck, the 2*d quality;* that from the cheeks and throat, the fore legs above the knees, the hams, and back part of the haunches, the 3*d quality;* and that which is taken from the rump, the extremities, and from between the legs is of the 4*th quality*, and is comparatively worthless. Formerly, the 2d quality was taken only from the haunches and belly; the 3d quality, from the back part of the neck, the cheeks, throat, breast, fore legs and hams; and the 4th quality, from the top of the head, the tail, and the extremities of the hind legs. Hence, a different value is fixed upon each of these classes of wool, although it has long been a custom in some provinces to sell the whole pile together at a mean price.

As soon as the wool is properly assorted, it is spread upon wooden hurdles and beaten with rods, in order to deprive it of as much of the dirt and dust adhering to it as possible, previous to its being scoured. In selecting a situation for a scouring place, a valley open to the sun is preferred, through which runs a stream of pure water, and where there are inclined meadows sufficiently spacious for drying the wool. The fixtures and apparatus for scouring consist of one or more large copper caldrons, mounted on a furnace, and provided with appropriate cocks, pipes, gutters, &c., for conducting hot water into three square pits or wells (one for each class of wool), lined with masonry, and are about a yard in depth. These wells are filled to half of their depth or more with wool, upon which there is let fall from the caldrons a current of water heated to a temperature of 120° to 140° F., and even higher, according to the degree of fineness and the condition of the article to be scoured. The finer the quality and the more dirty the wool, the higher it becomes necessary to carry the temperature. The wool, thus disposed, is turned in the hot water in every direction with a large fork or some other implement, for a space of five or six minutes, and is then spread on wooden hurdles, a yard or more in width, situated alongside the pits, in order to drain off the water and filth which has already begun to dissolve. Directly by the side of these hurdles is a narrow aqueduct formed of masonry or stone, through which flows a current of cold water, into which the wool is next thrown. It is received at the head of the aqueduct, and is carried along its length by the force of the current, being pressed and rubbed in its passage by the feet of one set of men, until it is at last thrown out by another, upon an inclined plane formed also of masonry or of stone, where it is left to drain. At the lower end of the aqueduct is placed a small net for catching such locks as may accidentally escape the washers above, and thereby prevent them from being carried away. As soon as the wool is well drained, it is spread upon the grass in the neighboring meadows, and in the course of four or five hot sunny days, it becomes sufficiently dry to be packed up and sent away to the manufactories or to the places of shipment. It is usually put up in canvass bags, of various sizes, on each of which are marked an initial letter indicating its quality, and other letters or signs denoting the flock and sub-division it is from; so that the experienced wool-stapler is enabled to distinguish, at sight, the nature of each bale and the cavaña to which it belonged.

Imperfect as this mode of scouring appears, it answers every purpose for preserving the wool during the longest voyage; and if a similar mode were adopted in the United States, particularly with the fine-woolled races, or those, the fleeces of which are intended for felts, instead of washing it on their backs, as is generally the case, it would doubtless be much improved. It is a well established fact, that if wool remains in the yolk for a period of six months or a year, and then be scoured, it will yield a greater weight of clean wool than if washed when newly shorn; but in the process of fulling, the articles made from it become more loose and less uniform in their texture, are weaker, less durable, and consequently less valuable to the consumer. And here it is to be regretted that the interests of the wool-grower, of the manufacturer, and of the consumer, are not looked upon as the same.

The fibre of wool is known to consist of small capillary tubes filled with one kind of oil, regarded as the *marrow*, and is surrounded by another oil, or rather soap, commonly called the *yolk*. The latter, by weight, with other impurities, constitutes from 50 to 75 per cent. of the wool, and in some cases even more, according to its quality. The finer the wool, the more abundant is the yolk. The solid part of the fibre is soluble neither in cold nor in hot water, unless heated to a certain point. From 22 to 28 per cent., by weight, of the yolk, will readily dissolve in pure water of a temperature of 120° to 140° F., but not in a cold bath, even if it were to remain for three or four days; and in the ordinary process of scouring, in Spain, there is left of this substance, in the wool, from 4 to 7 per cent. That portion of the yolk which will dissolve in cold water, if suffered to remain on the fibre for a long time, causes it to "swell up," according to Vauquelin, "split, and lose its strength;" whereas, if it be removed by soaking the wool in cold water for 24 hours, and then subjecting it to a clear running stream, as practised in Spain, the part remaining will become indurated in time, converting itself, as it were, into new wool, and will tend to preserve rather than injure the fibre from the attacks of insects and from decay.

A contrariety of opinion appears to prevail with regard to the best mode of washing or scouring wool. One class of persons advocate washing it on the backs of the sheep; another, in hot water; and a third class in a cold bath, after it is shorn. The first mode is regarded by Messrs. Perrault de Jotemps and Girod, of the department of Ain, in France, as being often dangerous to the health of the sheep, and scouring it in hot water, as inexpedient, and at the same time injurious to its quality. The mode that they prefer is, to allow the wool, as soon as shorn, to soak in pure cold water for a greater or less length of time, according to its degree of impurity, which, ordinarily, will not exceed 24 hours; and then to subject it to a cool running stream, in a similar manner as practised in Spain. Experience has taught them that, by this mode of scouring, the wool is of a better quality, and suffers much less by waste than by the hot water process; and besides, as it contains a determinate quantity of yolk, or indurated oil, it enables both the buyer and the seller to judge more accurately of its value, and ultimately requires from the manufacturer much less labor. The experience of others, however, in preparing wool for felts and the thicker kinds of cloth, would seem to justify the mode of scouring in Spain. D'Jay Browne.

New York, 7th April, 1845.

Agriculture in Scotland.—No. 7.

Since the date of my last letter I have made several short excursions in the neighborhood of Edinburgh, tempted by the spring-like days which already, in this mild climate, begin to visit us. The ground is perfectly soft and free from frost; the grain crops look bright and flourishing, and some of the irrigated meadows are quite luxuriant in the greenness and freshness of their herbage. A great part of the plowing is accomplished, and early this month potato planting will commence.

Farm of Mr. Girdwood.—A few days since, I walked out to Corstorphine, about four miles, to visit the farm of Mr. Girdwood. The whole village of Corstorphine, a compact, pretty little place, is included within his boundaries. From the upland fields, which stretch nearly to the top of Corstorphine Hill, is a most lovely view, embracing, on the one side, Edinburgh, with the castle in the centre and Arthur's Seat in the background, and the Firth of Forth, dotted with sails, and bounded to the north by the dark coast of Fife; while on the other spread the rich fields of the West Lothians for many miles, the view being only limited to the south and west, by the Pentlands and the high hills of Lanark.

Mr. Girdwood, with much kindness, passed the whole day in rambling with me over his fields. The farm buildings first attracted my notice; they are far too small for the size of the farm, and are not convenient in their arrangement. Another year, however, will probably see the whole removed, and new ones erected on a more commodious site, furnished with every convenience. The stack yard still presents a large array of stacks, comprising wheat, barley, oats and beans. In the autumn there were about 160, as I understand. The oats and wheat were this year cut while quite green, so much so, that some of the neighboring farmers did not hesitate to say that John Girdwood was "*clean gane daft*." The result, however, has silenced them; for his grain is heavier and better than theirs, while the straw is much more valuable as fodder. The barn yards are always in winter well filled with fattening animals. These are of various breeds, but chiefly West Highlanders and Angus or Polled. They are bought at fairs, sold off to the Edinburgh butchers as soon as they come into condition, and their places immediately refilled.

That part of the farm which may be called upland has only been taken by Mr. Girdwood within a few years. The outgoing tenants considered it absolutely impossible to raise good turnips there, and thought any attempt at improvement quite chimerical. They were overrun with weeds. The rains in winter ran in torrents down the furrows, washing away the manure and conveying accumulations of sand to the lower end of each field. Mr. Girdwood commenced operations by putting a drain 30 inches deep into every furrow, being 18 feet apart; he then dug up all the weeds in the open fields, and cleaned away those that occupied a space of several feet on each side of the hedges. Deep plowing and liberal manuring completed the change. The turnip crop on one of these fields was, two years since, as high as 40 tons to the acre, and the crop of the present year, a portion of which I saw, is very fine. No water now stands in the furrows, and it is easy to see that during the whole winter none has run over the surface; it all goes to the drains. This is an instance of the admirable effect of efficient drainage, preparing the way for deep plowing, and all the modes of modern manuring which prove so efficient on well *dried* land.

Mr. Girdwood assured me that since he, still a young man, began to attend Edinburgh market, the number of quarters of grain weekly sold there has doubled. It being a market where all the grain sold is from the neighborhood, and actually brought in sacks to the place of sale, this increase shows the effect of the improved modern systems in the increase of crops upon the same land; for near the city not much land has been reclaimed. I think that not a single intelligent farmer would deny that draining was the first step towards this great improvement. While the quantity has increased the quality has improved in an equal proportion. As to barley, for instance, I am assured that, a few years since, but about five samples in a hundred were fit for malting. Now, the buyer may almost go into the market blindfold, for not more than five out of a hundred are *unfit* for malting.

The lower part of Mr. Girdwood's farm is nearly level, and has a rich alluvial soil. His course of rotation for the whole farm is one of six years, being one year of grass and the other five of potatoes, barley, turnips, wheat, and oats. Manure is added both with the potatoes and turnips, or once in three years, so that with the year of grass, this may be considered a liberal rotation. He does not, however, tie himself strictly to it, but varies when circumstances seem to require it.

Immense quantities of potatoes are raised on the farms near Edinburgh. On this, I saw one heap which contained about 4,800 bushels, and yet it was only about a third of the entire crop. They are generally placed in a long shallow pit, about 8 feet wide, heaped up as high as possible, and then covered with straw and earth, the latter thrown lightly on to the thickness of about 8 inches. Wisps of straw are placed on the top as ventilators, and drains run on each side, and the whole rises about 6 feet above the surface.

Mr. Girdwood, in common with all of the best Scottish farmers, feels the necessity of scientific knowledge, and in his zeal for obtaining it, has been attending courses of practical chemistry. The information already thus acquired must be of very great advantage in his daily pursuits, and his spirited example in this respect can scarcely be too highly commended.

JOHN P. NORTON.

Edinburgh, March 1, 1845.

VALUE OF AGRICULTURAL JOURNALS.

ANY improvement made in the agricultural department of business is truly matter for congratulation, since more are dependant upon agriculture for subsistence than any other branch of business whatever. That man, then, who is instrumental in improving the system, or in any way giving an impulse to its interests, is in truth a benefactor to mankind. At present it is evident there are errors in the farming system. Since my acquaintance with the American Agriculturist, I have not only read its columns with delight, but with an unusual degree of interest, and am led to conclude, it is an instrument well calculated to strike an effectual blow at the root of some (at least) of the errors now existing in the general system of farming.

Like a philanthropist, you are making efforts to correct errors that have long existed, and though your labor may appear like "casting your bread on the waters," I am confident you will find it again, even if not until "after many days." You have reason to take courage, for already your efforts have been crowned with a degree of success.

In some sections of our country, where a few years since agricultural papers were strangers, and where the people were far from being "careful to entertain" them, your paper has found friends and is hospitably received, even in old Connecticut. Though some have hesitated to have their names enrolled on your subscription list, in consequence of having been disappointed in the merits of a periodical of a similar character published for three or four years in this State; yet I take pleasure in having it in my power to say, these difficulties have in many places in this State been overcome, and the reading of your work has removed objections that might have been considered insuperable. I have recently learned with pleasure that you have quite a respectable list of subscribers here. This is an indication that all interest in agricultural improvement has not subsided in our State. I am truly glad to find there is an interest in this thing, and I trust there is a waking up to the subject of agricultural reading. As a proof, permit me to state one fact.

I learn that an acquaintance of mine, a respectable farmer, on being solicited to patronize the Agriculturist, declined on the consideration that he then was, and for two years had been, a subscriber to an agricultural paper, and had not been profited by it at all. However, on learning that the Agriculturist was edited by a *practical farmer*—one who understands the business in all its departments, and who is thoroughly acquainted with stock breeding, &c., he requested his subscription to be forwarded, commencing with Vol. IV., remarking at the same time, "Such a work is entitled to my patronage, and the patronage of all who desire to see agriculture improve." After reading Nos. 1 and 2, he manifested in high terms his approval, inquiring where he should leave his subscription for Vol. V.

This gentleman is a thorough farmer, and possesses an extensive influence. I am sensible that you are not in want of commendatory paragraphs, yet I presume you will excuse me for this *one*, as it is *only* one out of many that I might give.

The practical matter with which your paper abounds has a tendency to open the minds of its readers to a sense of, not only the possibility, but also the propriety of improvement in this most important branch of business. The farmer is unwilling to admit that agriculture is susceptible of less improvement than the mechanical arts, while at the same time it is far behind in this country. They ask what's to be done? Why, up and at it with the same untiring industry that the mechanist has displayed.

Connecticut, March 5, 1845. B. C. D

IMPERIAL OATS.—I am pleased to see that you offer this valuable grain for sale. I commenced raising them four years ago, with half a bushel of seed. They are now my principal oat crop. Their weight is 40 to 45 pounds per bushel. They yield as many bushels per acre as the common oat, but should be cut when the straw turns yellow near the root, for if left till the head turns entirely so, they are apt to shell, the chaff being light and weak, while the grain is heavy. I am satisfied they are the best oats I can raise for stock feeding and general farm use, as I produce none for sale. From my own experience I can freely recommend them for general cultivation.

Black Rock, N. Y. L. F. A.

We sold every barrel sent us of these oats early in March, not being able to supply more than half the demand.

CONNECTICUT OXEN.—Having received two orders the past month for Connecticut working oxen, we wrote to Mr. Wm. K. Townsend, of New Haven, requesting him to execute them. This he has done with great satisfaction to the parties concerned; selecting one pair from Old Guilford, and the other from North Middletown. They are finely formed and of medium size, yet possess great muscular power, and have such a quick step, that either pair will plow an acre and a half per day with ease

FARM AND VILLA OF MR. COLT.

This farm is situated in Paterson, New Jersey, 16 miles west of New York, and just an hour's ride by railroad. It comprises 560 acres, of which 430 adjoin and are half encircled by the village—making some part of it town lots—and 130 lie on the towering hill, about a quarter of a mile beyond. This last has been devoted principally to pasture, and we shall speak of it hereafter. The soil of the lower division of the farm is a sandy or gravelly loam, and naturally thin—some parts indeed are very poor. This, however, only stimulated the genius of Mr. Colt the more to study to improve it, which he has done to a very high degree; and now, in many instances, the crops quadruple and quintuple the former produce of the land.

In bringing this up to its present state of fertility, Mr. C. has been at no extravagant outlay on the farm proper, but has merely set an example that any intelligent and industrious man desirous of improvement may follow. Of course he has carefully husbanded all the barn-yard manures; in addition to this, he has availed himself of the peat and swamp mud in the vicinity; but one of his chief resources, after all, has been the night soil of the town of Paterson, and the waste from the woollen, cotton, hemp, flax, paper, leather, and comb factories of the town—offal from the slaughter-houses, and indeed all vegetable and dead animal matter which could be found within a convenient distance of the farm. All these are eminently fertilizing substances, and yet in many places they are left to accumulate in filthy heaps, scenting the air with their noisome exhalations—a disgusting nuisance to their neighborhood, and frequently highly detrimental to the health of the inhabitants. But here Mr. C. directs these waste materials to be seized upon, mixes them with swamp mud or peat, adds a little charcoal dust, plaster of Paris, ashes, lime, salt, or some other foreign substance, and thus forms a rich inodorous compost, which has a most astonishing effect upon vegetation. Of the exact manner of making these composts we shall give recipes hereafter, for the benefit of all farmers who may be so situated as to be able to procure the materials to form them.

Rotation of Crops.—These are such as are usually followed by good Jersey farmers, and are so well known as to need no particularizing.

Stock.—This is various and choice in its kind. The Devons were obtained from the herds of Mr. L. F. Allen, of Black Rock, and Mr. Stanley, of Baltimore. They are very handsome, especially those procured of Mr. A., and just the thing for such light land. The Alderneys are from the importation of the late Mr. Nicholas Biddle, of Pennsylvania. They cost a high price in England—about $300 each—and are the only pure animals of this breed of cattle we know in this vicinity. We have seen plenty which are *called* Alderney; but we have met with none before of undoubted pedigree. They are small in size, and in appearance rather ugly than otherwise. Their color is yellow inclining to dun, with white patches. The nose and rim round the eye is of a dark ash or brown; the horns short, fine, and turned up; the eyes large and brilliant. They are celebrated for the extreme richness of their milk—the quantity is small, rarely exceeding eight to ten quarts per day. As a curiosity they are worthy of propagation, and we are glad to learn that Mr. Colt means to keep them pure; he seems to have no great faith in this immaculate crossing for *improvement*, which seizes like a mania upon so many of our countrymen, and for which, as a general rule, we entertain the most supreme contempt. The Durham cows are few, and kept for the large quantity and good quality of milk they give. The pigs are mostly Berkshire. We also observed a pure Cochin China sow. Its color is black, with grey legs, and patches on the belly. The animal is of small size, with a bear's head and hollow back—the belly like a blown up bladder, and almost touching the ground. The other part of the stock is working cattle and horses for farm use The soiling system of feeding is here adopted, and has been found far preferable to that of pasturing.

Farm Buildings.—These are plain and convenient, and were erected at a moderate cost. The barn and sheds surround the yards, thus rendering them much more comfortable for stock. The piggery and hen house are well contrived, and superior of their kind. The urine from these buildings, the wash of the kitchen, and any other fertilizing substance which can be, is conducted into the well littered barn-yard, and helps to form and enrich its compost heaps.

Villa.—Mr. Colt reserved 70 acres adjoining the farm for his own residence and particular management. This he is fast transforming into one of the most charming places imaginable. In 1839 the enclosure was a barren sand hill, with an alder swamp of twelve acres at the foot, and the residue of the land of the poorest quality. The top of the hill was first levelled somewhat, and here was erected the family mansion.

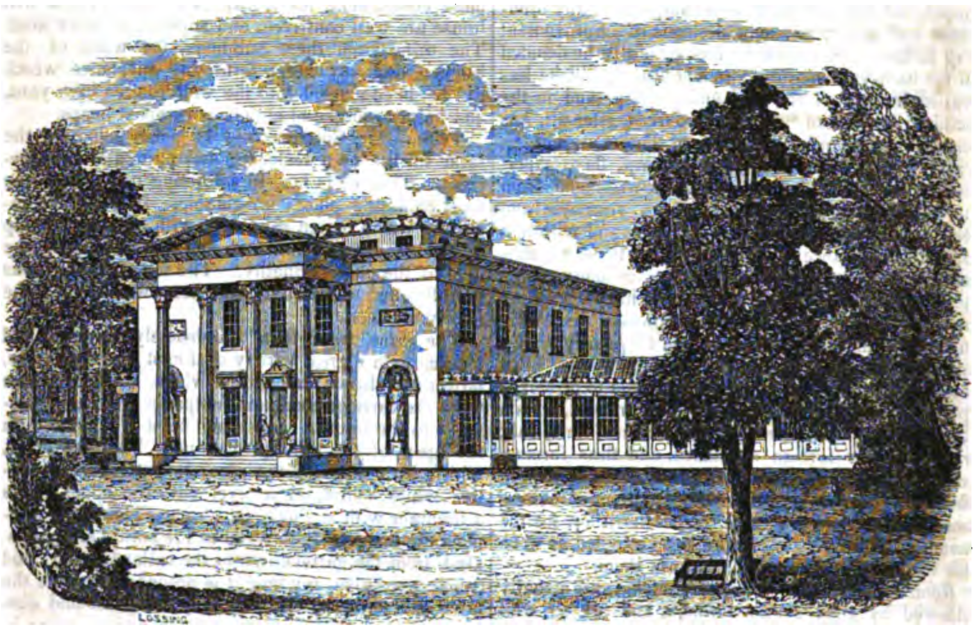
The sides were then handsomely terraced and planted with a great variety of forest and fruit trees, flowering shrubs and grape vines. Among these wind the carriage road and footpaths from the gateways to the house. South and west of this, and on the apex of the hill, spreads out a beautiful lawn, with a little pond of the clearest water in the centre; while below, on a level with the street, plays a fountain with a single *jet d'eau.* This pond supplies the mansion with water of the softest and purest kind, from the garret down to the cellar kitchen; and can be used also, any time it is needed, to irrigate the lawn and terraces. In this way the grass and surrounding vegetation are kept green and growing in the hottest and driest weather.

The swamp was next drained, and its surface proved a rich bed of muck several feet deep. This was dug out and spread upon the neighboring upland to enrich it. A clear rivulet was then let in, and thus was an unhealthy swamp turned into two pretty lakes, separated by a fall of nine feet. Here Mr. C. has placed a water wheel, which gives sufficient power to force the water to the very top of the mansion and into the little pond before spoken of in the centre of the lawn on the hill. A rustic lodge is erected over the water-works to protect them from all weather, and this is encircled by a copse of wood, so that, till closely approached, the two lakes are supposed to be one. They are well stocked with fish, and have boats in them for water excursions, for those disposed for a short row or sail. A great variety of water fowl may be seen sporting in the lakes and around, among which we noticed wild geese, the beautiful wood-duck, and a pair of magnificent swans from the royal gardens of Fontainbleau, in

France, presented by the Duke of Polignac to General D'Evereux, and placed here with his friend, Mr. Colt. The lakes are dotted with little islands and promontories for the accommodation of the water fowl. Here flourish the magnolia glauca and flowering shrubs. North and east of the lakes is a wide cranberry patch, and the fruit and vegetable gardens, which are ample and well stocked. The remainder of the enclosure is a park planted with every variety of foreign and native fruit and forest trees, which could be conveniently obtained, and that will grow in this climate. The whole is to be enclosed with a handsome stone wall, eight feet high, a small part of the line of which is already laid. Around this, within, is planted a thick belt of trees; so that, when grown, the wall will be hid from sight. At the northeast side is a gateway and rustic lodge; at the southwest another gateway, with a castellated gothic lodge.

On the border of the gardens, near the lower lake, stands a handsome cottage for the gardener, and attached to it is a grapery 80 feet by 20. West of the lower lake is a beautiful cottage. This is the summer retreat of General D'Evereux, who so generously raised an Irish legion of 5,000 men in 1819, transported them to South America, and under the patriot Bolivar, gallantly assisted to achieve the independence of the provinces of Columbia and Venezuela. No cross fence is allowed to mar the view within the enclosure. The trees and shrubbery are planted single, and in clumps or rows, as most desirable to beautify and relieve the ground.

ROSWELL HOUSE. FIG. 42.



Seat of Roswell L. Colt, Esq., Paterson, N. J.

Mansion.—This is erected on the hill rising 65 feet above the town. It is 68 feet 8 inches square, two stories high, and is built of handsome brown freestone, nearly resembling the celebrated Portland stone of England. It is taken from the Paterson quarries, in the immediate neighborhood, and is the same as that used in building the new Trinity Church of this city. Facing the south, and attached to the house, is a conservatory, with a double span roof, 60 feet long, 37 wide, and 12 high. Adjoining this, at the end, is a hot-house 27 feet long, 37 wide, and 30 high. These are well filled with a choice collection of plants, and are kept in excellent order. A little aviary of rare birds stands at the left, as the conservatory is entered from the centre drawing-room, and a few statues grace the walks around.

The architecture of the house is very handsome, as will be seen from the sketch above. It has a portico in front, supported by pillars of the Corinthian order, and a piazza on three sides. The roof is four square, with a double pitch, and eaves jutting three feet over the walls in the Italian style. This preserves the walls from dampness even if not furrowed out. The interior is highly commodious and beautifully finished. We subjoin a plan of the first story, Fig. 43.

Explanation.—*a.* Portico, as seen in front, Fig. 42. On each side of this are niches in the walls for statues. Within the portico, at the right and left of the front door, stand the two famous statues of Tam O'Shanter and Souter Johnny, by the celebrated Scotch artist, Thom. They are admirably done, and Mr. Colt tells some amusing anecdotes of their being occasionally taken in the evening for living personages, by transient visitants.

b, b, b. Piazza on the east, west, and north sides.

c, c, c. East rooms or parlors, 25 feet by 20, with folding doors opening into each other, thus forming a complete suite of rooms. They also open into the conservatory by raising the windows, which extend from the ceiling to the floor.

d. Vestibule, 10 feet square.

e. Hall, 10 feet by 56.

f. Stairway.

g Private stairway.

h Dressing-room to bed-room *k*.

i Bed-room

j. Dining-room, 25 by 20, corresponding with the centre parlor. The chimney to this is unique, being a hollow Ionic pillar of Scagliola marble, through which a pipe is placed to carry off the smoke.

k. Bed-room.

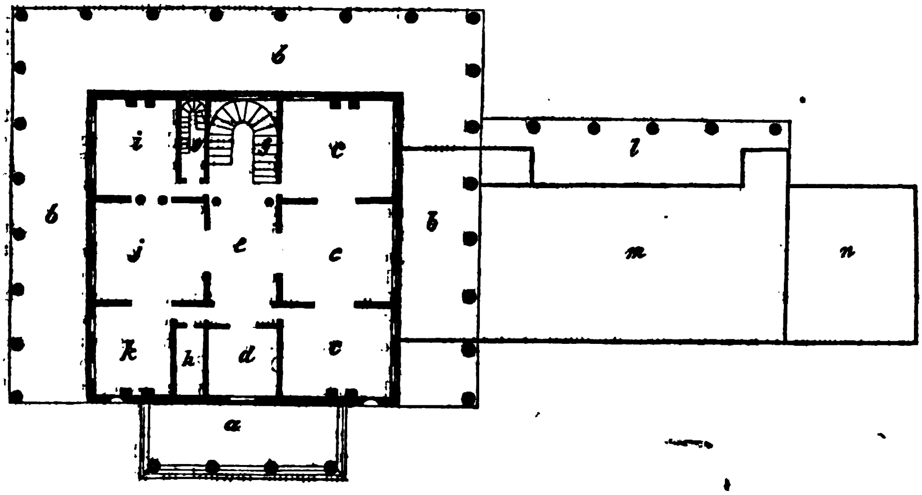
l. Portico to conservaory.

m. Conservatory.—*n.* Hothouse.

From the above simple description, we think the reader will now have a pretty good idea of the charming place that the taste and persevering industry of Mr. Colt has formed at Roswell House. With its buildings and terraces, park, lake, and gardens, it will indeed be a most enchanting spot when completed, and well worthy the visit of those who take pleasure in viewing such things, or who would study to improve themselves in architecture and landscape gardening.

Fruit Trees and Grapes.—It was not with the intention of making an ostentatious display that Mr. Colt has done what we have described; but in all things he has endeavored to combine utility with beauty. There are about 1,000 forest trees already set out here in the park, and at least 1,200 pears, apples, peaches, cherries, plums, and the smaller fruit, aside from a nursery stocked with everything choice and of great variety, chosen from abroad as well as at home. These will be fully tested in this climate, and the result made public for the benefit of all, and then a generous distribution of such as are worthy of propagation. For the same purpose, also, he has planted a part of the terraces with about 1,000 vines, after the French method. Most of these are foreign varieties, and it is intended to acclimate them if possible. We are sure that our readers will join with us in saying that all this is deserving commendation; for if Mr. C. were disposed to sell his fruit, &c., he would ultimately get a handsome income from his pleasure grounds.

GROUND PLAN OF ROSWELL HOUSE. FIG. 43.



When we visited Paterson the grapes were in season. They had ripened well and proved delicious fruit. We found them generally free from mildew. Since this, Mr. C. has prepared two acres more for grapes, by trenching the ground three feet deep and three feet wide, leaving one foot untrenched, so that the rows of vines will stand four feet apart. These trenches he has manured with bones, old shoes, rags, the refuse of the factories, and street dirt. The plantings are principally Miller's Burgundy, black Hamburg, chasselas, and sweet water. The trellis is made of half inch iron-rod posts, stuck two feet in the ground, and rising four feet out. Holes are punched in these one foot apart, and iron wires run through from post to post. All these are coated with gas tar, and will thus last a long time. It makes a light, cheap trellis; at the same time, it is sufficiently strong for all purposes.

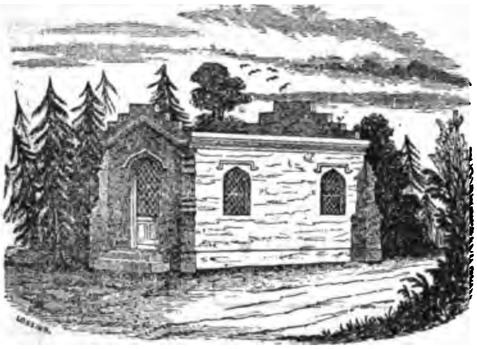
Hedges.—One of these runs along the roadside, formed of the Maclura or Osage Orange. Thus far this beautiful native shrub has escaped the attack of insects. It grows thriftily, and its verdure is of the deepest and thickest kind. We have met this shrub in other parts of the United States, and can highly recommend it for hedges.

Mushroom House.—This is a rare addition to the conservatory in the United States. That at Mr. Colt's is 50 feet long, and has four tiers of beds five feet wide, and running the whole length. These are planted with seed brought from France, and bear very abundantly nine to ten months out of the year. The mushrooms are delicious eating, and usually sell in market for 37 cents per quart. They will come into bearing one month after planting the seeds.

Prairie Grouse.—Mr. C. has a few pairs of this highly prized game bird recently sent him from New Orleans by his son. He will endeavor to domesticate them, and if he succeeds they will prove a rich addition to the poultry yard

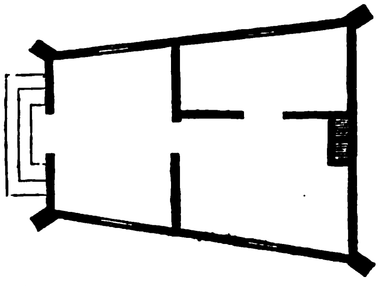
White Guinea Hens.—Among the poultry we noticed these rare birds. We should be glad to know if any of our readers possess white peacocks, as we are desirous of obtaining a pair.

Removing a Large Tree.—On the lawn in front of the house stands a large horse-chestnut. It was planted by Mr. Colt in 1795, and transplanted some distance to the spot where it now stands, in 1840. It is growing finely, and in looking at it one would judge it had always stood in its present position. It is one of the most successful specimens of transplanting a large tree which has fallen under our observation.



LODGE. FIG. 44.

The above lodge is at the gateway of the west entrance to the pleasure grounds. It is of pure gothic architecture, of the time of Elizabeth. It was designed by General D'Evereux, and we must confess that we think it no less pretty than appropriate, and quite a gem in its way.



GROUND PLAN OF LODGE. FIG. 45.

The rooms we need not particularize; they are such as are suitable for those of a small family.

Hill Farm.—South of Paterson, and within a stone's throw of the village, rises a range of hills 600 to 700 feet above the level below. Large quarries of the finest kind of brown free-stone are found here. On the top of this hill spreads out a broad rolling plain, and here Mr. Colt has another tract of land of about 130 acres. It abounds in sweet-scented grasses, and would make one of the best of sheep walks. The surface is rather rocky, but occasional rich loamy veins are found, sufficient to grow roots and other things for sheep. A large flock might be pastured here in the summer, and then be taken to fat or winter on the farm below. Delicious mutton could thus be made from Southdowns and their crosses.

The view from the hill is of considerable extent and exceedingly picturesque; embracing the winding course of the clear, sparkling waters of the Passaic; the town of Paterson; a beautiful country around, crowned by one of the highest peaks of the Neversink; and the Palisadoes and highlands of the Hudson beyond. A pretty perch indeed for the summer residence of one inclined either to hard digging or the sentimental.

The Town.—Paterson contains upward of 11,000 inhabitants, and is one of the most thriving manufacturing towns in the United States. The manufactories are of great variety, embracing iron, cotton, hemp, flax, silk, woollen, paper, and saw and flouring mills. Here are the celebrated falls of the Passaic, 70 feet high. They alone annually attract many visitors. The water of the river is used three times over from a series of cascades, with a head and fall of about 22 feet each, thus giving an immense water power. The stream is durable, and mill privileges sell at a high rate. We presume that Mr. Colt's income from this source alone is not less than $25,000 a year.

J. S. SKINNER, ESQ.—We learn with regret that this veteran of the agricultural press has been displaced as third assistant in the Post Office Department at Washington, on political grounds alone. For a quarter of a century or more, Mr. Skinner has been one of the most efficient friends of the agricultural cause, and we must confess our astonishment that he should be one of the first to be proscribed on the advent of a new incumbent to the Executive chair. Under the late President, another efficient writer and friend to agriculture, Solon Robinson, was dismissed from the office of Deputy Post Master of his town, simply because his politics were not agreeable to that dynasty. Mr. R., we believe, is pretty independent of government patronage; but not so with Mr Skinner. We trust, however, that both of these gentlemen will find ample reward in their future labors, and that they may be so successful in all their subsequent business, as to esteem it fortunate rather than the contrary that they were deprived of their offices.

THE AMERICAN HERD-BOOK. — To accommodate such Short-Horn breeders as wish to insert the pedigrees of the increase of their herds this spring, in the pages of this work, it will be kept open till the 1st of July next, by which time it is to be hoped that all who wish to register their cattle will forward their respective pedigrees. The lists are fast coming in, and it will be a source of pleasure to the subscriber to make them as numerous as possible, that the array of American Short-Horns shall at least show some sort of respectability to their friends on the other side of the Atlantic. L. F. ALLEN.

Black Rock, N. Y., April, 1845.

Lasteyrie's Treatise upon the Merino Sheep and Wool of Spain.—Traité sur les Bêtes à Laine d'Espagne. Par Charles Philbert Lasteyrie, à Paris.—We particularly desire any of our readers who may know where this work is to be had in the United States, to immediately inform us, and we shall be very much obliged. We would also like to obtain Cully and Cline on breeding

REMEDY FOR DISEASED PEACH TREES.

ACCIDENT sometimes suggests a lucky thought, leading to useful experiments. A gentleman of observing mind in my neighborhood, Mr. Robert P. Mills, was examining some young peach trees at a time when the *brine* in which walnuts for pickles had been soaked was brought out of the house to be thrown away. He directed this to be poured on the body of a tree very much diseased and gummy, where the stem entered the ground below the surface. He scraped away the earth around the body, forming a cup-like cavity, and without removing the exuded gum or the worms, poured the remainder of the brine, impregnated with the walnuts, into it, so as to immerse the wounded part of the stem. The wounds on the tree have healed, and it is now in a healthy state, while others of the same age and near it which were similarly affected still remain diseased.

Whether the effect of the above experiment is to be attributed to the saturated solution of salt, or to the qualities imparted to it by the *white walnuts* soaked in it, or to both, can only be determined by experiments. But one thing I know, that while certain vegetables are fed upon, and even inhabited by certain worms, insects, flies, and bugs, other vegetables are never disturbed, approached, or inhabited by those same creatures. Each race of animals seems to be confined to certain genera of plants, while other plants may not only be offensive but actually poisonous to them. The green leaves of both the black and white walnut are, I know, extremely offensive to fleas, and to the flies of the woods and prairies, so annoying to cattle and horses in the warm weather of our summer months; and the outer rind of the young fruit possesses the same qualities as the green leaves and bark of the tree. If the odor or taste of plants, to which certain creatures have an *instinctive antipathy*, are artificially imparted to those on which they live or feed, it is rational to conclude *à priori* [reasoning from this], that they would leave the individual plants, thus treated, unmolested, mistaking them for plants to which they have a natural aversion.

Now, many experiments made by the most distinguished botanists, and persons skilled in vegetable physiology, have established the fact, that the *spongioles* of plants have no elective power of rejecting substances held in solution, and presented to them. The most active poisons, narcotics and acids, are absorbed by them, and enter the circulation. Vegetables as well as animals may be poisoned. The desideratum seems to be the discovery of substances for solution and absorption offensive to the creatures that injure the plant, and which will not be deleterious to the plant itself. Whether these conditions can be united, time and experiments must determine. All such problems are worthy of attempts to solve them. No doubt the creatures that infest plants may be destroyed by outward applications which may not enter the vegetable circulation. But in this case the remedy is more temporary, and besides may not reach or come in contact with the intended victims.

JOHN LEWIS.

Llangollen, Ky., Feb. 5, 1845.

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The suggestions of our correspondent we deem highly valuable, and on showing his manuscript to one of our friends, he determined at once on making some experiments with a view of testing the possibility of giving a series of plants and shrubs, substances inimical to the creatures injuring them but not injurious to the plants and shrubs themselves. This has been frequently done by English farmers in one instance, namely, soaking turnip seed in oil and sulphur. The first leaves of the turnip partake of this compound, and the smell or taste being inimical to the fly, it shoots up unmolested. Black and white walnut trees being disagreeable to flies, should induce the farmers to cultivate them as shade trees in their pastures. The hint is well worth adopting on the prairies of the West; and growing the soft shell-bark hickory nuts would be a profitable business. We have seen highly productive orchards of these trees in Connecticut which were cultivated expressly for their fruit. We have been told by observing farmers, that the whortleberry, sweet fern, and some other kinds of shrubs, would not grow under the shade of the butternut tree; and we well recollect often seeing this confirmed, particularly in pasture land, where, out of the shade, and in the immediate vicinity of the butternut trees, these shrubs grew thick and rank.

SOUTHERN GRASS, FRUIT, STOCK, AND COTTON CONVENTION.

Grass.—At your request, made some twelve months since, I now say a few words on the domestic grasses in the Tennessee valley. By reference to No. 1., Vol. 3, of your paper, you will see a general description of the soil and productions of this country; one additional word about the country. Originally it was covered with a strong coat of barren grass, common to all the Southwest. This grass afforded fine pasture from early in the spring till July; it then became dry and tough, and was not relished by stock So soon as the valley was well peopled it disappeared, though now plentiful in the adjacent range of mountains, because they are not much settled. Stock can now be sustained there to considerable extent, and that region will ere long be filled with sheep.

From my practice and observations, I am not inclined to think that any of the domestic grasses will do first rate here. Blue grass will live, when protected by some shade, but makes no growth from May till October; hence it is worth little for grazing. Herds grass does tolerably well on high and low land, and affords more grazing the year through than any grass I have noticed. Meadow oat is a larger, bolder grass, but grows in bunches. It is not so nutritive in my opinion. Orchard grass does not do well; and in truth I have never seen a full stand of it anywhere. I have never seen a lot of timothy in this country. Red clover produces one good crop a year. It blooms the first of May, is in perfection in June, dries up in July, and is of no further use till next spring. It grows strong and luxuriantly, and affords more pasture while it is in season than any other grass. It will maintain a good stand for four or five years without plowing the ground, and pastured every year. It is the best fertilizer we have of the grass family, though not to compare with the stock pea sown broad-cast. We have an English blue grass, that does not spread from the root, four times as large as the common blue grass. It litters or grows in bunches, and resembles the orchard grass in size and character. It is sown in August or September, and makes good pasture the following win ter. Stock are fond of it, and it is a certain seed bearer. Experiments are yet limited in it, and I am not prepared to make up a definite opinion of its merits. One of the principal reliances for pasture is the crab grass, common to all the cultivated land. It will do to graze the last of May, and continues good till frost, and is not so much affected by drought as the other grasses.

Stock.—As to domestic animals, we have a share of all the improved blood of the Union. In the horse line, North Alabama has for a number of years held a conspicuous place, and has some of the best breeding studs of turf horses in the Southwest. Messrs. Jackson and Kirkman, of Florence, have taken the lead at all the southern tracts, New Orleans not excepted. We keep but few cattle, as beef is not much used. We have some good Durhams—a few imported direct from England. We have a few of most of the varieties of sheep, but they are not managed with any care; they are kept for domestic use. No effort to grow wool for market yet, but there is some talk on that subject. I prefer a cross between the Merino and long wool (Bakewell or Cotswold) for general use; some are in favor of Southdown—I am in favor of their hardy compact form, but opposed to their harsh fleece.

Fruit.—As to fruits, we have some of most varieties, but I cannot speak definitely of any, save peaches. It is a splendid soil for them. Cherries have done well. Plums very well, except the large blue kinds. Apples are not numerous; but I think most kinds will do well except in very dry summers; they will then *sun-burn*, and fall off before mature. Pears are very scarce, and I doubt their success, except a few of the early kinds; they seem to be uncertain bearers in this climate. We have not given that attention to fruits and vegetables that we should have done. We have been tied down to cotton, a crop that occupies us the entire year. But this must be stopped. We are over-producing, and have now stocked the world with cotton, and are our own destroyers. The number of *acres* must be *cut short* till we reduce the average crop to 1,800,000 bales. Some change must take place or the South is bankrupt.

A Cotton Convention,—I would suggest the idea of holding cotton-planter's conventions at the three great southern seaports, New Orleans, Mobile, and Charleston, early next fall. Let every cotton-growing county send its delegates, and if the three conventions did not agree in their separate capacities about the amount that must be cut off from every man's crop, let these conventions appoint delegates to a central convention at Tuscaloosa, there to determine on the proportion to be cut short. This to be binding on all the cotton-growing regions. But let each of the three conventions adopt their own rules and regulations to carry this into effect. I would suggest one-third as a proper quantity to cut off, and that each county have its surveyors to inspect every farm in the county, and if any planter violated the rule, to *burn* all the cotton produced by such violation. The benefits resulting from this plan would be these. With two-thirds of the force, land, team, &c., now employed in growing cotton, every planter of cotton would *pocket* from one-third to one-half more *money yearly*, and would have one-third of his force to improve his land, grow provisions, or employ it in any other branch of industry he might think proper. There is not a sane cotton-planter in the South that will deny the truth of this position; if all acknowledge its benefits we certainly can carry it into effect. Nothing is wanting but action. Shall it be said that we are asleep and will not pursue our own interest? Not only our interest, but our salvation as planters! If the fact was known, that there had been but 1,800,000 bales produced the past season, cotton would be worth eight cents before the sun could set upon the news. Let us then have a *certainty* and *no mistake*, that there will be but 1,800,000, produced next year; then we can get a fair compensation for our labor, and not till then. I may recur to this subject again. I wish to give the ball a push. G. L. COCKRILL.

Tuscumbia, Ala., Jan. 29, 1845.

We admire the spirit of our correspondent in regard to his proposed convention, and hope that it may be carried into effect. Raising less cotton and more of other products, is what we have contended for, ever since we started this journal. If the South did this, its people would grow rich in defiance of the whole world. The manufactures of Massachusetts alone are of more value than the whole cotton crop of the South. What would become of this very wealthy, intelligent, and highly independent little state, if she abandoned these, and devoted herself exclusively to corn and grass, her greatest agricultural products? *Poverty, ignorance* and *dependence*, would be the necessary result, without the shadow of doubt.

GUANO AND ITS USES.

Exhaustion of Lands.—I am much surprised at the opposition and the numerous objections constantly brought forward against the use of guano, most of them unfounded—many perfectly absurd; for if large quantities could be brought here, one general benefit must accrue to the farmers, even to those who could not use it; viz., a decrease in the price of the manure, which is sold in large quantities in the vicinity of all populous cities. One of the chief of these objections is, *that it will exhaust the soil;* however, before I show conclusively that this cannot be the case, permit me to discuss this question of "exhaustion," on which our farmers have often very wrong impressions. Much practical good may be learned on this subject from the gardeners who grow vegetables for the markets; they never have an idea of *exhausting* the soil, and many obtain three and even four crops from the same piece of land every year.

I am well aware that under the existing ideas of rotation of crops, &c., it is expected that after two years' manuring and cropping, virtue enough should be left in the soil to bear a good result of grass the third year without manure; but it would certainly be better to get off three luxuriant crops successively. I should wish to exhaust my land completely every year; to take off everything the manure put on will allow, leaving none of it to be washed away, and be useless by the winter flood and draining. I would not only take away all the manure put on in the shape of crops, but all that this manure would enable me to take in addition from soil and atmosphere; and by proper management, I do not doubt that this may be done with grass. An analysis will soon show what is requisite to be added after each so called exhaustion.

Application of Guano to Corn.—Take a sandy sterile piece of land, plant it with Indian corn, and manure at the rate of one and a half ounce per hill. Of this ounce and a half, about one-fourth consists of the ammoniacal salts; all this, with the exception perhaps of a small portion of humate of ammonia, is used by the crop; then one-third consists of phosphate and oxalate of lime, and phosphate of magnesia. This is used by the crop chiefly for the purpose of forming the embryo or sprout of the seed. Now as only about one-third of the substance of these embryos or sprouts of the seed consists of the phosphates, it is quite clear that it would take several millions of them to use up 33 per cent. of an ounce and a half; therefore, a large portion of these phosphates remain unused in the soil, ready for another crop. We then come to one-eighth or one-tenth of soda and potash salts; of these, perhaps, five-eighths or three-quarters is used for the crop, the remainder is left in the soil. The rest of the guano being chiefly moisture, land and animal matter, need not enter into our calculation.

The position then is, that each year of manuring with guano, luxuriant crops are taken off, leaving still in the soil a large proportion of the phosphates, and small proportions of the soda, potash, and ammonia. Now in what ingredients is barn and stable manure chiefly deficient? Why, in phosphates This is proved not only by analysis of the manure, but by the practice of English agriculture; for, after several years' cropping, land, however highly manured with it, will not bear good crops of wheat without an additional supply of phosphates, which is afforded by an application of ground bones. Therefore, if land is manured three or four years in succession with guano, and afterwards with barn and stable manure, there will be an accumulation from the former remaining in the soil, of exactly those ingredients in which the latter is most deficient, and this seems to me to settle the question of exhaustion.

Artificial Guano.—There is another objection to guano, which is, that we can make an artificial guano as good and cheaper. There is no doubt that after chemical analysis has ascertained the ingredients of guano, if we mix these ingredients together, from whatever source they are obtained, in about the same proportion, we shall make a manure of almost equal value. But suppose only the small quantity of one hundred thousand tons of this artificial manure were wanted in this country, if the ingredients could be obtained at all, would not their value be so much enhanced by this demand as to render the price no longer economical? The recommendation of the use of guano by no means implies that the other manure of a farm should remain idle; far from it. On the contrary, the study and knowledge of this subject will prove to the farmer the value of much that has been hitherto totally disregarded as manure, and will show him that if the ammonia of guano has lain so long in a tropical region undissipated, he can also fix and preserve the ammonia which is necessarily derived from every living being on the farm.

I trust this subject of the exhaustion of soils will receive the earnest attention of the practical farmers this year. If they would lay aside a little of their preconceived notions respecting exhaustion, rotation, &c., and constantly experiment judiciously and carefully on five or ten acres, they would always be learning something, and always improving, by the exercise of their powers of judgment and discrimination.

J. E. TESCHEMACHER.

Boston, Mass., March 11, 1845.

WESTERN CALENDAR FOR MAY.

IF the corn crop shall not have been all planted in April, it should be completed as early as possible in this month. If planted even late in this month, in good ground, it will have full time to mature, before frost; in latitude 39°; but late planting is more liable to be injured by drouth. During this month the plows and hoes should be diligently employed, in the cultivation of the corn crop. The more this crop is worked the better, but the plows and hoes *must be stopped* whenever the ground is so wet as to make it clog. Unless in cases of urgent necessity, the corn should not be plowed soon after heavy rains. It is best to wait patiently till the soil is dry enough to pulverise finely. In the meantime the hands may be employed in getting fire wood for summer use, splitting rails, making fences, &c.

This is the proper month for putting mares to horses and jacks. The colts will then come in April, when the mares can begin to get a good bite of green food. Early colts do best, because they will attain more maturity before the winter sets in, and can be carried through that most trying period for young stock, in better condition. In this month, also, sows should be put to the boar, when it is desirable to have fall pigs. But if farmers desire that their sows should have but one litter in a year, it should be so arranged as to make the pigs come from the middle of March to the last of May.

In this month the pastures are luxuriant, and all kinds of stock can have an abundance of green food, and consequently need a full supply of salt. A half pound per week is the proper allowance for full grown bullocks per head. The smaller cattle, sheep, horses, cows, &c., should have a proportionable allowance. Hogs do not eat much salt. But all stock should have a full supply, *once*, but still better, *twice a week.*

RAISING CORN, POTATOES, AND PUMPKINS, IN ALTERNATE ROWS.—Mr. Muir, of this town, gave me an interesting account of an experiment made by himself in 1837, in planting one acre of land with corn, potatoes, and pumpkins, which was as follows: The land was plowed from 6 to 8 inches deep, well harrowed, and a light coat of manure spread on and harrowed in well. The land furrowed lightly 2½ feet apart, and planted one row of corn, and the next potatoes, alternating them to the sixth row, which he planted with pumpkins. Thus every other row being corn and potatoes, except the sixth, which was pumpkins, throughout the field. The corn in the rows stood only one stalk in a place, in this manner:

. . . . . . One cornstalk, and then a space of 6 or 8 inches to another; then a space of 14 to 16 inches. The potatoes and pumpkins were planted as thick as they would bear, but he did not describe the manner. The amount of produce from the acre was as follows. 187 bushels of corn in the ear; 153 bushels potatoes; and 100 cart loads of West India pumpkins

He has since followed a similar course, and is satisfied that this is the best way for him to get the most profit from his land.

E. P

Essex Co., N. Y., March 25*th*, 1845.

THE SAFARU-PEACH.

While passing a few months on Teneriffe, some years ago, I was particularly attracted by the excellence of the peaches of that island. Among those of the finest quality was the Safaru-peach, which, in point of flavor, smallness of stone, abundance of juice, and beauty of form, in the opinion of the Spaniards, is not equalled by any other variety. The size, color, and general external appearance, as far as my recollection serves me, greatly resembled Rodman's cling-stone, denoted by the following cut:

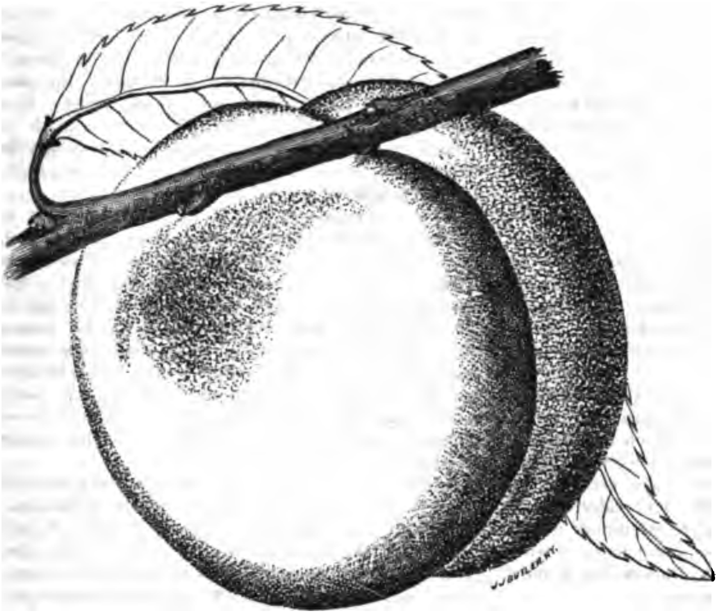

Fig. 46.

This peach is said to have originated in Spain about the middle of the IXth century, by the Arabian monarch, Abdurrahman. The envoy whom he sent to Syria for his two sisters, brought back many rarities, among which were some peaches from the gardens of Arrusafat. Being proud of this fruit, the monarch showed it to his friends, and presented one to Safaru-bn Ulbaid, who was so delighted with its flavor, that he preserved the stone, from which he raised a tree that ever after bore his name. This variety is still cultivated in some parts of Spain, and fully merits all the praise bestowed upon it. B.

New York, 15th April, 1845.

HOW TO WORK CLAY LAND.

You know, by several years' experience, the troubles and difficulties to be encountered in cultivating a farm with a stiff clay subsoil, and that too without the aid of a subsoil plow. The object of this is to get an expression of your opinion, founded partly on your own experience, and partly on the theory which has grown out of that experience, and the experience of those who have used these plows, whether they may not be advantageously used in the following manner: After the ground which is designed for a crop of corn or potatoes is prepared for planting, let it be furrowed out the distance you wish your rows apart, then plow a deep furrow the other way with a common sized plow, say four feet apart (I have land enough to spare); then level these last furrows by running a harrow over them lengthwise (I have horses and boys enough); then follow these furrows with a subsoil plow, running it as deep as possible. The object of this is to carry off the surface water where the descent is sufficient, and where it is not, to answer the purpose of a reservoir for the water to settle, and to be evaporated by the sun, instead of standing promiscuously upon the roots of the crops. There will be no need of marking out the ground the way the subsoil furrows run; the eye will guide the fingers in dropping the seed equi-distant between the subsoil furrows. I propose using the harrow in cultivating the crop, letting the horse walk in the subsoil furrows, and using the hoe only to cut up the weeds left by the harrow near the hills, and to earth the potatoes (not the corn) a little, as I approve of keeping the seed, and subsequently the roots, near the surface; and if the ground be well manured, as I intend it shall be, and often stirred with the harrow, there will be no danger of drouth. I know you will say, subsoil plow all your grounds, and then plant in the usual way; but this I cannot afford to do. If you don't like my plan, say so, and give your reasons. If you do like it, or can suggest some improvement short of plowing up the whole ground, say that, and send me a subsoil plow of suitable size, and call on my agent in your city for the cash. A Novice

Thorough draining after the Scotch method, as detailed by Mr. Norton, page 330 of our last volume, is the only complete and certain method of getting rid of the surface water which stands on stiff clay soils. But we suppose he thinks he cannot afford this, and for a partial remedy he may do well to follow his own plan. We formerly pursued a tolerably successful method of cultivating a clay soil, by laying it up into lands of four to six furrows, clearing out the wide open furrows well between them. From these lands, balks, or ridges—as they are variously termed—the water would readily filter through to the wide open furrows on each side, and then run off, if there were declivity enough to do so; otherwise it would stand there till evaporated. Of course, if these are deepened with the subsoil plow it will add to their power as drains. We have sent our correspondent a subsoil plow as requested, but advise him to keep his land in permanent grass as much as possible; this is decidedly the best crop on a stiff clay soil, not only in this country, but even in England, where produce is worth double our prices.

European Agriculture—No. 3.

My last letter was dated from Rome, which city we left soon after for Naples. The country between Rome and Naples is generally level, and is well cultivated with vines and wheat.

The Vine.—This is not cultivated here as in Genoa, but is trained in graceful festoons upon and between trees planted for the purpose, at a distance of some fifteen or twenty feet; and even at this season the effect of these extensive groves, with the festooning vine, and the bright green of the wheat beneath them, was very fine, and when in full fruit must be beautiful indeed. The vintage is said to be the most delightful season in Italy. Until a certain day, the vines are not touched by proprietor or traveller; but when the fruit is known to be matured, the day is fixed, and all commence at once. The traveller is at liberty then to pluck as many as he chooses; the peasants assume their gayest dress; men, women, and children are all in the fields; and the manly Italian laborer and the graceful peasant girl, dance around the wagons loaded with fruit, and the whole vintage is a season of festivity.

Draining Low Grounds.—Those which are wet, are very conveniently drained by furrows at the distance of some three feet apart, and are easily made, by plowing three furrows, and then a back furrow on each side of them, which thus leaves a sort of narrow trench similar to that between two lands with us, to let off the water.

Agriculture at Naples.—This is at a very low ebb; and is not owing so much to the indolence, or rather inactivity of the people, as to the exceeding richness of the soil. No peasantry will work harder than the Neapolitans, when the object is sport; but they think it scarcely worth while to bestow much labor upon the soil, when a slight degree will afford them abundant means of sustenance. I do not think that the fertile soil even of our Western States is superior to that of Naples and its vicinity. It is almost entirely volcanic, with some six or eight feet of black mould, the quality of which would lead one to suppose, that Vesuvius for ages had been throwing upon it, from the bowels of the earth, all the elements of fertility. Flax is much grown in the vicinity, and also a species of lupin of rapid growth and very succulent, which is cut, and given green to the cattle. Lucerne is also much used; and, as I was told, is frequently cut six or eight times in the season. There is some horticultural taste here, a very excellent botanic garden, and a number of beautiful villas. Tenore, the director of the botanic garden, is a man of much intelligence, and gave me some valuable information. He much regretted the deficiency of enterprise among the Neapolitans on these points. There are no works whatever here on horticulture, and but two or three on general agriculture.

Stock.—There is not much in the vicinity of Naples very excellent in the way of stock, with the exception of their beautiful and delicate breed of pigs, possessing the compact form of the Berkshires, without their size and grossness. I very much doubt, however, whether they would thrive well in our climate. They have a nice but small breed of horses, which possess no remarkable qualities, and will not compare with the Roman horses. Jacks and mules are much used as beasts of burden, and I saw some noble specimens of the latter nearly sixteen hands high. The cows are nothing superior, but give good milk and butter. The latter is monopolized entirely by the king, and every roll bears his arms. For vegetation the climate of Naples is perhaps one of the finest in the world—with just sufficient winter to give plants a proper rest and vigor; and nothing but skill and industry are wanting to make it inferior to none in agriculture.

The Olive.—I ought to mention that there are some fine olive groves near Naples, containing large trees, one (tree) of which is said to have produced *fourteen hundred* gallons of oil. This tree succeeds better in Italy than in the south of France, where the crop is very precarious, being sometimes cut off by the frost. Being thus tender—more so in fact than the orange—it would scarcely answer for introduction, except into our milder southern States, for even in Florida the orange orchards are occasionally destroyed by frost.

Silk.—Near the palace at Caserta, is also a silk manufactory belonging to the King, where a considerable number of hands are employed, and superior velvet and silk are made.

A Cascina.—On arriving at Leghorn, we visited Pisa, celebrated for its leaning tower, and found there a large Cascina or royal farm. It belongs to the Duke of Tuscany, and is celebrated for its camels, which were presented by the Pacha to the former duke, and which breed here. There are now some forty-three of them, and they are used on the farm for carrying burdens. They are, however, adapted only to the desert, and are of very little use in a country like this. We mounted one of them and took a short ride, but found his gait very unpleasant. In a long ride it must be fatiguing. On this farm there are about one hundred cows, of the breed of the country (Tuscan). They are generally fine, clean-limbed animals, and some of large size. There is, however, no uniformity among them, and some were quite inferior. I noticed one noble, Short-Horn cow, showing many fine points. These cows give about fourteen quarts of milk per day, ten quarts of which make a pound of butter; thus showing its superior richness. There were some fine oxen and steers, a few sheep, and about fifty poor horses. The farm buildings are poor and inconvenient. There are many fine cork trees, and long avenues of the maritime pine, the seed of which is roasted and eaten by the poorer classes. Here, as in France, every proprietor is obliged by law to plant a certain number of trees for all that he cuts down; and thus a continual supply of firewood is kept up, which, in a country so destitute of coal, is a matter of no slight importance.

Valley of the Arno.—The part between Leghorn and Florence is low and wet, lying below the level of the mountain streams, from which its fields are protected by dykes. In these dykes are flood-gates by which the farmers can at pleasure irrigate their fields. The fields are highly cultivated with wheat in ridges, as at Naples. Rows of trees, covered with vines gracefully festooned over and between them, are spread through the country. Occasional fig, cherry, and other fruit trees were seen, and the whole valley bore the aspect of great fertility and high cultivation. Near Florence the country is more hilly, but cultivated to the very summit with olives, vines, and wheat, and thickly dotted with farm-houses and villas. Hay-stacks were numerous; some with the hay partly cut out, very much as described by the poet Cowper, and presenting a singular appearance to an American eye. Many peasants were on the road, returning from their work, and their appearance fully sustained the character given to the Tuscan peasantry. The men had fine features and a bright and intelligent look, while the women were uniformly graceful and handsome, with that glowing complexion, bright eye, and arched eyebrow, peculiar to northern Italy. Some of them were walking, and others riding on donkeys, seated as near the rear end as they could well get without falling of. The vicinity of Florence is thickly studded with villas and country-seats, most of them handsomely laid out in the Italian artificial style, and presenting, as you ride through the country, a succession of fine farms and beautiful gardens.

Florence.—This is a beautiful city, and may well be called the fairest in Italy. The public and private galleries are filled with the choicest paintings and statuary, and statues are scattered everywhere about the city. There is nothing in any of the collections, however, that will bear comparison with the best works of Powers, the American artist, whose studio we visited. He is a bright-looking man, and shows in his eye much of the fire of genius. He was just finishing off two most exquisite statues, of that rare and beautiful character, that one could examine every day for a month with increasing pleasure. One is a full-sized Eve, standing with the apple in her outstretched hand, her face exquisitely beautiful, presenting a masterly expression of innocence hesitating at guilt. It may be deemed the best effort of Powers' chisel, and it is hoped will go to America. Its value is $3000. The other statue is a fisher's boy, holding a shell to his ear, and is a superior piece of workmanship. The attitude and expression of listening are capital. A bust of Proserpine is also very excellent.

Padua.—From Florence to Padua the country is very flat, and irrigated by water introduced from the Po and Adige. Lombardy poplars line the road, and basket willows are planted in wet spots, and also in the fields for vines to be trained upon. Padua is a fine town, and possesses the best botanic garden and conservatories that I have yet seen. It has a fine specimen of the gingko biloba, some thirty feet high. It is probably the oldest botanic garden in the world.

Venice.—From Padua we went by railroad within a few miles of Venice, and thence by gondola to this singular city of the sea, so beautifully described by the poetic pen of Rogers. Its splendid palaces, the Rialto, the chamber of Secret Council, the Bridge of Sighs, and all the other relics of its ancient splendor and power, were seen to great advantage as our gondola swept by them, impelled by two muscular gondoliers, who wielded their oars with no little grace. No animals are seen in the streets excepting an occasional dog or cat; no carts are heard; and no noise but the hum of voices or the plash of an oar as the gondola glides swiftly by. It is a singular city, and one of great interest.

Lombardy.—From Padua to Milan, and, in fact, throughout Lombardy, the country is very highly cultivated, and irrigated in every direction, at the pleasure of the owner, by means of canals from Lake Como, and several rivers. The meadows were in consequence beautifully green, though early in March; and they were cutting the first crop of grass, to be followed by four others during the season. Here we saw on the road, numbers of the beautiful large oxen of Lombardy, uniformly of a cream color. They have fine bones, clean limbs, and, as far as I could judge, are equal to anything we have in America. The country about Milan contains some of the best farms in Italy, and Lombardy in this respect excels anything I have yet seen on this side of the Atlantic.

We start in a day or two on our journey across the Alps; where, I fear, I shall scarcely find much in an agricultural way, that will interest the readers of the Agriculturist. S. B. PARSONS.

Milan, March 16, 1845.

GREAT SALE OF SHORT-HORN CATTLE IN ENGLAND.—By reference to our advertising pages, it will be seen that three large and very fine herds of Short-Horn cattle are offered for sale in England. We had the advantage, in August, 1841, of looking over Earl Spencer's stock of cattle, on his beautiful estate at Wiseton, and can highly recommend them from our personal minute observation. A sample of his herd was seen at the New York State Agricultural Society show at Poughkeepsie, last fall, also at the cattle show of the American Institute, in Mr. Oliver's superb young bull, Marius, which took the first premiums at both of these meetings, as the best animal in his class.

Earl Spencer is one of the most distinguished agriculturists and noblemen in England—celebrated alike for his talents, virtues, and retiring modesty of disposition. When Lord Althorp, he was for some time leader of the Whig party in the House of Commons, and the great advocate of the reform bill. He held a distinguished post in the ministry of Earl Gray, and is the untiring advocate of the abolition of the odious Corn Laws of Great Britain. He is again President of the English Agricultural Society, for the second time—is quite celebrated for his beautiful herd of Short-Horn cattle, and has earned the enviable title throughout his country, of the "farmer's friend." We wish his lordship a good sale, as well as Messrs. Hutton and Watson. We have seen some of the animals of these last named gentlemen, and can commend them to the attention of American breeders.

BLACK SEA WHEAT.—I herewith send you a sample of Black Sea wheat raised by me. It was sown on the 25th of last May, and reaped on the 29th August. It was not attacked by the rust or fly. Much of this kind of wheat has been raised the past season by the farmers in the vicinity of Montreal, and, from the information I have been able to collect, they propose sowing no other kind of wheat this spring.

M. J. HAYS.

Metcalf Farm, Coté St. Antoine, Montreal, C. E., March 19, 1845.

We presented this sample of wheat, sent us by our correspondent, to a friend in this vicinity, who immediately sowed it, and will let us know in the autumn how it succeeds in this section of the country. All accounts seem to agree that it is a valuable spring variety, especially for the more northern farmers

Ladies' Department.

SUNFLOWER SEED FOR POULTRY.

BY MRS. KIRKLAND.

In a certain garden not very well kept, it so happened that a great number of sunflowers sprang up; and as weeds were not lacking in the rich soil, the intruders escaped notice, until they grew so stout that it seemed a pity to pull them up, especially as there were few pretty things to supply their places. Tall hollyhocks there were, and four o'clocks, and here and there a yellow lily; while rhubarb run to seed, and stray heads of asparagus, spoke of neglect and indifference in the owner. Melon vines were allowed to straggle across the paths, and not a few great, staring, yellow pumpkin blossoms mingled with the signs of choice fruits, threatening utter destruction to melons of all kinds, by the intermingling of improper farina. But nobody thought of these things. "The garden" is too often a despised part of the thriving farm; and both beauty and comfort are unnecessarily sacrificed, from the mistaken idea that the time spent in gardening is wasted, or has at best only the reward of "pleasing the women folks."

Harvest time came, and now all idea of introducing any reform in the garden was out of the question. The melons, as they ripened, proved very much like squashes. The weeds all went comfortably to seed, and lived to see an infant crop begin to sprout up, green and tender, about their tough old stems, even before the frost had had time to despoil the parent heads of their branches. Some borders of stone crop with which certain beds, the objects of female care, had been ornamented, had expanded into wide banks of shaded green velvet—the only beautiful result of neglect in a garden. The girls had become quite discouraged, seeing the work get so far ahead of them for want of some aid from strong arms.

Fanny L—— sat in the window which overlooked this wilderness of weeds, gazing musingly, and with no slight touch of sadness, at the ruin which had enveloped the scene of her pleasant spring dreams. She saw whole broods of fowls scratching and half burying themselves in the midst of her pretty jonquils and other early bulbs; and she had not the heart to go and drive them away; for, as girls in the country often say, "where's the use?" if father or brothers will not secure either the garden or the fowls so as to keep them apart.

Presently she observed a great commotion among the sunflowers. These staring luminaries had grown very variously, some tall and mast-like, others stunted and slender, with small and poor heads. But these less favored specimens seemed more agitated than their more lofty brethren; and upon closer scrutiny Fanny observed that a detachment from the fowl army were attacking the sunflowers in the most energetic manner, springing up at them, to the very extent of their ability, and nipping them so shrewdly that the great black heads were fain to bow at each fresh attack.

After noticing this new warfare several times, it struck our young gardener that there must be something very attractive in the food for which the chickens were willing to work so hard; and she determined to make a little experiment as to the value of it. So without saying anything of her intentions, she decapitated all the sunflowers which had been too high for the fowls to reach, using for their stubborn necks her brother's little hatchet; and when she had deposited them in certain empty barrels in the barn, she contrived to have a portion of the fowls shut up, and fed them every day with a good portion of the sunflower seed, in addition to the coarse food which they shared with the rest, and a pan of water daily.

The very first time a dish of fowls was wanted for dinner, Fanny sacrificed a pair of her stock, and she was delighted to hear her father ask, "Why, wife! what fowls are these? We never had anything like 'em before! Where did you get 'em? Their flesh is as tender and juicy as can be, and they are as fat as butter!"

Fanny now told her little story, and as she had noticed an exact proportion between the size and richness of the seed and the quality of the soil in which the plants happened to stand, her father was induced the next year to manure a patch purposely for sunflowers, and to cultivate them with express reference to the improvement of his fowls.

Since that time this provision has not been neglected; and although some of the neighbors refuse to believe that sunflower seeds can make any difference in the juiciness of "chicken meat," yet they cannot deny that Mr. L——'s fowls are the best—far the best in the neighborhood; and Fanny's observation of an apparently trifling fact has brought many a dollar to her father's pocket, to say nothing of providing a home-bred delicacy for the table.

Now, Mr. Editor, I have recounted Fanny's experiment in all simplicity; wishing to know from some of your numerous and practical correspondents, whether they have ever made a similar one with like results—since we must not think that one fact makes a theory, any more than one swallow a summer.

To Preserve Fresh Meat.—As hot weather is approaching, it is important to those who are so situated that they cannot always procure fresh meat when wanted, to know how to preserve it. The ordinary method of putting it in an ice-house, down the well, and other cool places, keeps it but a short time; but in this suggested by the National Gazette, it may be kept sweet for years:

"For household purposes the most convenient way will be to provide a number of earthenware jars, with ground covers and a small hole in each cover, like that in a tea pot, which may be stopped easily. The meat may be first partly boiled and deprived of its bones, and be then put, with part of the liquor, into the jars, which must be set in a pan of warm water and gradually brought to a boil. When the steam is rising from the jars the covers must be put on them and fixed down air-tight, the steam generated in the meantime being suffered to escape from the lids. Finally, the pan must be removed from the fire, the holes in the lids stopped with small corks, and these corks waxed over to make them more impenetrable. It may also be a good precaution to run a little melted wax round the edge of each cover, to obviate the leakage due to any imperfection of the surfaces in contact. Meat might also be preserved by repeatedly dipping it in melted fat, the same as they do candles, till it had a protecting coat of tallow which the air could not penetrate. Vegetables may be preserved in jars as above, as well as meat."

Boys' Department.

A WORD TO THE SMALL BOYS.

"All work and no play,
Makes Jack a dull boy:
All play and no work
Makes him a mere toy."

Well, boys, Mr. Allen has very kindly given two or three pages every month, for your special benefit. After you have read the Boys' Department, the first thing to be done is, to see that you have other books to read and study, such as you can understand, and such as will give you valuable information—the Child's Book of History, Peter Parley's Geography, Colburn's Arithmetic, Marco Polo's Travels. Books for parents and their children, and such kinds of books, not silly stories, you must be well supplied with. And then see to it that you spend some time *every day*, in reading and study. This is absolutely essential, if you ever intend to make good farmers, and good men. And I take it you are going to be farmers, and not professional men.

Then next you must see that you have an axe, a hoe, a rake, and all tools, just suitable to your age and strength. Do not try to chop with your father's axe, nor use any of his tools; tell him it is no reason why you should not have light tools, because he had to use his father's. *See to it that you have the proper tools*, and that they are in the very best order. Then have a place for every tool, and for every book, and when you have finished using it for the time being, put it in its place, so you can go right to it in the dark.

Now for using them. Learn to do one thing at a time. When you read or study, do not get all your books about. Take one book and read in that from day to day, till it is finished, and then another, and so on. And be sure to read the Boys' Department in the paper as soon as your father gets it from the office. When you work, have some one kind of work, and stick to that till it is finished, and till the time is up. Do not begin to chop one stick and then run off to find a softer one; or think you must go to read or study, or go a fishing, or make a poultry-house. Finish that stick of wood, no matter if it is hard; leave it not. So, when you read or study, do not think you want to use your hoe then, or ride the horse to water, or anything else, but study. *One thing at a time, and that thing for the time.* If you need help, that is, directions about your books or about your work, or your play, your parents will always give it to you. But when you are told sufficiently, then do it up, and do it yourself. At proper times, you can have your sports—go a fishing, play ball, make a pigeon-house, tame your rabbits, feed your chickens, &c., &c. Do that up thoroughly when you are about it; and do your work and your study just as thoroughly when their times come. Be cheerful and lively at each. Do not say you are tired, or hot, or lazy, when it is time to bring in the wood, or hoe in the garden. Do not ask to get away till the work is finished. Be sure, if you do just right you will have abundance of time for all your little matters, and will be happy about it too. There, that will do for this time. If Mr. Allen prints this I may talk some more with you. T.

Ohio, March, 1845.

CHICKEN COOPS.

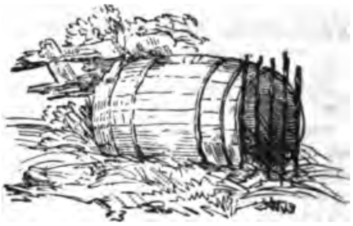

Fig. 47.

The most common method employed among farmers for the purpose of confining the hen with her young brood, is to drive stakes into the ground in front and make a pen about two feet square and cover with boards; but a better plan is to lay a flour barrel on its side, with one end out, and drive a few sticks into the ground in front. This makes a very dry and comfortable coop.

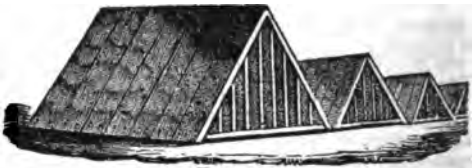

Fig. 48.

The above figure represents the marquee-coop, which we have used for several years, and find it answers a good purpose. It is formed by nailing boards two feet in length in such a way as to form two parts of a triangle, the ground forming the other, as in warm and dry weather we consider it best to have them next the earth; but early in the spring, when the weather is cold and the soil wet, a platform of boards or an old door should always be put under the coops. It should be at least two feet deep, one end be boarded up tight, and the other secured by nailing strips of lath, in the form of grates, leaving sufficient space between them for the free passage of the chicks without admitting the hen. In front there should be a broad piece of board of the same length as the front of the coop to feed them on. This board may be secured to the coop with leather hinges, so as to admit of its being raised up towards evening. This answers the double purpose of protecting the chicks against the smaller noxious vermin, such as rats, &c., during the night, and of preventing them from wandering about in the dew and wet grass in the morning.

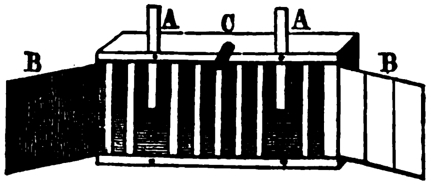

Fig. 49.

Mr. Lawrence Smith, a writer in the Cultivator, says: "The above cut is a coop of my invention. A, A, slats raised for admitting the hens; B, B, doors to open and shut at night, to prevent the intrusion of any kind of vermin; C, button for fastening the door."—*Poulterer's Companion.*

FOREIGN AGRICULTURAL NEWS.

By the steam-packets Great Western and Caledonia we have our European journals to the 5th April.

MARKETS.—*Ashes* were rather more inquired for, though slow of sale. *Cotton* has fallen the past month about the amount of duties recently taken off by the British Government, and thus the importer netts nearly the same prices as per our last. *Flour* dull. *Beef* has advanced. *Pork* remained without change. *Lard* the same. *Cheese* firm, with considerable sales. *Butter* in fair request. *Tallow* had fallen. Transactions in other things unimportant.

Money continues easy.

American Stocks.—Transactions in these suspended, in consequence of the tone assumed by the President in his late inaugural on the Oregon question. This, however, will prove a mere temporary feeling.

Business Generally not quite so brisk as per last advices.

The Weather was still cold and the spring backward. Orange, and many other trees and shrubs in the south of Europe, had sustained considerable injury from the unusually intense cold the past winter.

New Patent for Purifying Sugar.—The plan proposed by the patentee is to have a bath of solution of chloride of lime; this boils at 240 degrees Fahrenheit. The syrup, by a peculiarly formed treddle, is agitated so as to present a thin sheet of heated syrup to the air, and evaporation is carried on, according to the patentee, at a rate equal if not superior to that afforded by Mr. Howards' patent.

Great Consumption of Guano in England.—There is nothing in the history of farming so extraordinary as the consumption of guano, which is steadily and rapidly increasing in spite of all the frauds and tricks that tended to bring it into disrepute. The great houses of Gibbs, Myers, and Bright, have actually sold 18,000 tons of Peruvian guano within the last few weeks; and there will be in this country, ready for delivery, in the course of a few weeks, 200,000 tons of Peruvian and African guano.

Chinese Quinces.—In the very interesting translation of Father Ripa's account of China by Mr. Prandi, just published by Murray, he observes the quinces are larger than ours, and of exquisite flavor; the apples and pears also are so wholesome that they are given uncooked to sick persons. They consist almost entirely of juice, so that when dried in the sun, as is done in Europe, nothing but the rind remains.

To prevent Hares and Rabbits from Injuring Fruit Trees.—Take slips of rags 9 inches by 6, and dip them into melted sulphur; then fix them into cleft sticks about 2 feet in length, and plant them in the earth so as to stand 18 inches out of the ground round the quarters of apple trees, about 3 yards apart, and rabbits or hares will not come near them.

Horticultural Expedition to California.—The Horticultural Society of England is about to send Mr. Hartweg to California and the northwest coast on an exploring expedition. The discoveries in that region by Mr Douglas seem to have given the society an inclination to learn still more of the beautiful vegetation of California.

Poultry and Eggs.—The Zoological Society of London is making arrangement for a superb exhibition of poultry at the gardens in Regent's Park. It is said that upward of 250,000 000 of eggs were imported into England from the continent in 1841, 2 and 3, and that the duty alone on imported dead poultry was £600,000 ($3,000,000) the past two years in Great Britain!

Profits of Poultry—Mr. Arthur Young states that the women and children of the laborers on the farm of Mr. Boys attend to the poultry, and that the profits are usually £20, about $100 a year.

An Aged Pony.—A grey pony recently died near Manchester, in the 50th year of his age. This wonderful little animal was in active service up to the evening preceding his death, and once performed the extraordinary task of going from Manchester to Liverpool and back in harness, a distance of 72 miles, in six consecutive hours.

Destruction of Cattle by the Murrain.—In Monrovia alone upward of 30,000 head of cattle have been destroyed by this plague.

Horticultural Expedition to China.—Mr. Fortune, who was sent to China by the Horticultural Society, writes from Hong Kong, in December last, that he was busily engaged in packing for shipment to England, many rare plants, fruits, and flowers which he had been successful in obtaining.

Value of Oatmeal as Human Food.—It will be recollected by our readers, that we adverted to this, page 89 of our current volume, and we are glad to find our remarks no less strongly than jocosely seconded by the high authority of Blackwood's Magazine: "You won't pity us Scotch oatmeal-eaters any more, Mr. Cockney, we guess. Experience and science are both on our side. What makes your race-horses the best in the world may be expected to make your peasantry the best too. We offer you, therefore, a fair bet. You shall take ten English plowmen, and feed them upon two pounds and a half of wheaten flour a day, and we shall take as many Scotch plowmen, and feed them upon the same weight of oatmeal a day—if they can eat so much, for that is doubtful—and we shall back our men against yours for any sum you like. They shall walk, run, work—or fight you, if you like it, and they shall *thrash* you to your hearts' content. We should like to convince you that Scotch porridge has some real *solid* metal in it. We back the oatcake and the porridge against all the wheaten messes in the world. We defy your home-made bread, your baker's bread, your household bread, your leaven bread, and your brown Georgies—your fancy bread and your raisin bread—your baps, rolls, scones, muffins, crumpets, and cookies—your bricks, biscuits, bakes, and rusks—your Bath-buns, and your Sally Luns—your tea-cakes, and saffron-cakes, and slim-cakes, and plank cakes, and pan-cakes, and soda-cakes, and currant-cakes, and sponge cakes, and seed-cakes, and girdle-cakes, and singing-hinnies—your short-bread and your currant buns—and if there be any other names by which you designate your wheaten abominations, we defy and detest them all. We swear by the oatcake and the porridge, the substantial bannock and the brose—long may Scotland produce them, and Scotchmen live and fight upon them!"

The following articles we condense from the New Farmers' Journal:

To Make Cream Cheese.—Take one quart of very rich cream, a little soured, put in a linen cloth, and tie it as close to the cream as you can. Then hang it up to drain for two days; take it down, and carefully turn it into a clean cloth, and hang it up for two or more days; then take it down, and having put a piece of linen on a deep soup plate, turn your cheese upon it. Cover it over with your linen; keep turning it every day on a clean plate and clean cloth until it is ripe, which will be in about ten days or a fortnight, or it may be longer, as it depends on the heat of the weather. Sprinkle a little salt on the outside, when you turn it. If it is wanted to ripen quick, keep it covered with mint, or nettle leaves. The size made from a quart of cream is most convenient, but if wished larger, they can be made so.

To Preserve Butter Fresh.—The Arabs melt their butter over a slow fire, which expels all the watery particles It will then keep without salt; and the Irish have adopted with success a similar mode for exportation to the East Indies.

Editor's Table.

Acknowledgments.—To D. W. Horne, Esq., of Marianne, Florida, for seed of the Magnolia and cucumber trees. To S. H. Perry, Rec. Sec. for Premium List for 1845, of Rensselaer Co. Ag Society; Hon. George Folsom, also Dr. D Lee, the Chairman, for Report of the N. Y. State Assembly Committee on Agriculture; M. Tuomey, Esq., for his Report on the Geological and Agricultural Survey of South Carolina; an unknown friend, for Constitution and Proceedings of the Virginia State Ag. Soc.; Wm. H. H. Taylor, Esq., of Ohio, for Proceedings of the Hamilton Co. Ag. Soc.; A. Randall, Esq., for his Report of the Ag. Survey of Hamilton Co.; and Hon. John A. Dix, U. S. Senator from N. Y., for Mr. Ellsworth's late Report.

Colman's European Agricultural Survey. We are informed by the publisher, Mr. Arthur D. Phelps, of Boston, that the Third Part of Mr. Colman's Survey will be out early in May. The contents of this Part are—

XXV. Agricultural Education.
1. Glas-nevin Agricultural School.
2. Templemoyle " "
3. Brookfield " "
4. Larne School.
5. School at Ealing.
6. Agricultural College.
XXVI. General Views of Agricultural Education.
XXVII. Influence of Knowledge upon Agricultural Improvement.
XXVIII. Sciences to be Taught.
XXIX. Chemical Science.
XXX. Analysis of Soils.
XXXI. Natural Science.
XXXII. Model Farm.
XXXIII. Experimental Farm.
XXXIV. Economical Arrangement at the Agricultural College.
XXXV. Plan of an Agricultural Institution for the United States.
XXXVI. Elevation of Agriculture as a Pursuit and a Profession.
XXXVII. Rural Manners in England.
XXXVIII. A Pencil Sketch.
XXXIX. Life in the Country.
XL. Veterinary College.
XLI. Museum of Economic Geology.
XLII. Chemical Agricultural Association.
XLIII. Chemical Agricultural Lectures.
XLIV. Employment of Agriculturists.
XLV. Guano.

Judging from these contents, this will be the most interesting Part yet published. Those who have not subscribed will do well to send in their names at once. Saxton & Miles, agents for New York.

The History, Structure, Economy, and Diseases of Sheep. In Three Parts. Illustrated with fine engravings. By W. C. Spooner, pp. 456. Price $3.25. London.

A Comprehensive History of the Woollen and Worsted Manufactures, and the Natural and Commercial History of Sheep, from the Earliest Records to the Present Period. By James Bischoff. London. Two vols. of over 900 pages, illustrated with superb engravings. Price $7.

Sheep, their Breeds, Management, and Diseases; to which is added the Mountain Shepherds' Manual. Published under the superintendance of the Society for the Diffusion of Useful Knowledge. With numerous illustrations. pp. 604. Price $3.25. London.

The first two of these books have recently been published in England, and the last is a new edition. Great interest is at present excited in this country on the very important subject of sheep, and we have thought we could not do those of our readers who are concerned in them, a greater favor than to call their attention to the above works on the subject of their History, Rearing, Breeding, and Value for Wool and Mutton. These volumes before us are all standard works, and of high value. They are imported and for sale by Wiley & Putnam, 161 Broadway, N. Y.

REVIEW OF THE MARKET.

PRICES CURRENT IN NEW YORK, APRIL 26, 1845.

ASHES, Pots,	per 100 lbs.	$4 00	to	$4 12
Pearls,	do.	4 50	"	4 56
BALE ROPE,	lb.	6	"	9
BARK, Quercitron,	ton,	23 00	"	24 00
BEANS, White,	bush.	1 25	"	1 50
BEESWAX, Am. Yellow,	lb.	28	"	31
BOLT ROPE,	do.	12	"	13
BONES, ground,	bush.	35	"	40
BRISTLES, American,	lb.	25	"	65
BUTTER, Table,	do.	10	"	15
Shipping,	do.	8	"	12
CANDLES, Mould, Tallow,	do.	9	"	12
Sperm,	do.	25	"	38
Stearine,	do.	20	"	25
CHEESE,	do.	4	"	8
COAL, Anthracite,	2000 lbs.	5 00	"	6 00
CORDAGE, American,	lb.	11	"	12
COTTON,	do.	5	"	10
COTTON BAGGING, Amer. hemp,	yard,	14	"	15
American Flax,	do.	13	"	17
FEATHERS,	lb.	27	"	31
FLAX, American,	do.	7	"	8
FLOUR, Northern and Western,	bbl.	4 50	"	4 68
Fancy,	do.	5 00	"	5 50
Southern,	do.	4 50	"	4 88
Richmond City Mills,	do.	5 50	"	5 75
Rye,	do.	3 00	"	3 12
GRAIN—Wheat, Western,	bush.	1 05	"	1 12
Southern,	do.	1 00	"	1 10
Rye,	do.	66	"	67
Corn, Northern,	do.	46	"	48
Southern,	do.	44	"	46
Barley,	do.	55	"	57
Oats, Northern,	do.	29	"	30
Southern,	do.	24	"	27
GUANO,	100 lbs.	2 50	"	3 00
HAY,	do.	35	"	45
HEMP, Russia, clean,	ton,	205 00	"	210 00
American, water-rotted,	do.	105 00	"	185 00
American, dew-rotted,	do.	75 00	"	125 00
HIDES, Dry Southern,	lb.	9	"	11
HOPS,	lb.	13	"	15
HORNS,	100.	2 00	"	8 50
LEAD,	lb.	3	"	4
Sheet and bar,	do.	4	"	4
MEAL, Corn,	bbl.	2 38	"	2 56
Corn,	hhd.	11 50	"	12 00
MOLASSES, New Orleans,	gal.	32	"	33
MUSTARD, American,	lb.	16	"	31
NAVAL STORES—Tar,	bbl.	1 62	"	1 69
Pitch,	do.	80	"	1 00
Rosin,	do.	65	"	75
Turpentine,	do.	2 75	"	3 25
Spirits Turpentine, Southern,	gal.	39	"	42
OIL, Linseed, American,	do.	73	"	75
Castor,	do.	65	"	70
Lard,	do.	55	"	70
OIL CAKE,	100 lbs.	1 00	"	——
PEAS, Field,	bush.	1 25	"	1 50
PLASTER OF PARIS,	ton,	2 75	"	3 00
Ground, in bbls.,	of 350 lbs.	1 12	"	1 25
PROVISIONS—Beef, Mess,	bbl.	8 00	"	10 00
Prime,	do.	5 50	"	6 50
Smoked,	lb.	5	"	7
Rounds, in pickle,	do.	3	"	5
Pork, Mess,	bbl.	11 00	"	13 50
Prime,	do.	9 00	"	11 00
Lard,	lb.	7½	"	8½
Bacon sides, Smoked,	do.	3	"	4
In pickle,	do.	3	"	4
Hams, Smoked,	do.	6	"	11
Pickled,	do.	4	"	7
Shoulders, Smoked,	do.	4	"	6
Pickled,	do.	3	"	4
RICE,	100 lbs.	3 12	"	3 75
SALT,	sack,	1 35	"	1 45
Common,	bush.	20	"	30
SEEDS—Clover,	lb.	6	"	7
Timothy,	7 bush.	10 00	"	12 00
Flax, rough,	do.	8 50	"	9 00
clean,	do.	11 00	"	12 00
SODA, Ash, cont'g 80 per cent. soda,	lb.	3	"	3
Sulphate Soda, ground,	do.	1	"	—
SUGAR, New Orleans,	do.	5	"	8
SUMAC, American,	ton,	25 00	"	27 50
TALLOW,	lb.	6½	"	7½
TOBACCO	do.	2	"	6
WHISKEY, American,	gal.	23	"	25
WOOL, Saxony,	lb.	45	"	60
Merino,	do.	35	"	45
Half-blood,	do.	30	"	35
Common,	do.	25	"	30

NEW YORK CATTLE MARKET—April 21.

At Market, 840 Beef Cattle (650 from the South), 100 Cows and 300 Sheep.

Prices.—Beef Cattle, with a moderate, steady demand; there is no change in prices, viz: $5 a $7 for retailing sorts; unsold 75.

Cows and Calves.—$14a$34, with some at $38.

Sheep—We continue at $1.75 to $3.50a$4.

Hay—A fair demand at 59a66c. for loose.

To Correspondents.—Mr. Wakeman's article with an engraving of the Berkshire will appear in our next. We are in receipt of communications from E. C. M., A Subscriber, E. P., Alexander McDonald, L., John P. Norton, F. H. Hallock, and E. M. C. Will the latter favor us with her address?

Owing to an unexpected number of advertisements, brought in at a late hour, the report of the monthly meeting of the Am. Ag. Association, the Prize List of N. Y. State Ag. Society, and several other matters in type, are left over till next month.

CENTRAL AFRICAN GUANO,

The best sample in Market, and fresh from the Island of Ichaboe.

This cargo was among the first taken from Ichaboe, and was chosen from the best on the Island, and having been brought home in tight, iron-bound casks, instead of the usual manner of transportation in bulk, its fertilizing salts were better preserved than they otherwise could be. The following is an analysis of an average sample of it, by Dr. Chilton, the most eminent analytic chemist in this city. He pronounces it to contain more phosphate of lime, and less water, than any other sample of African Guano submitted to his inspection.

Phosphate of Lime,	38·00
Phosphate of Ammonia, Carbonate of do. Urate of do. Oxalate of do.	22·94
Sulphate of Potass, &c. Chlorides of Sodium, &c.	4·17
Silica,	·58
Water,	18·65
Undetermined organic matter, containing Nitrogen,	15·26
Loss, &c.,	·40
	100·00

Price, $40 per ton, of 2,000 lbs., or $2.50 per 100 lbs., in bags. Apply to E. D. Hurlbut & Co., 84 South street, or to

1t* A. B. ALLEN, 205 Broadway, N. Y.

PITT'S HORSE POWER THRASHER AND GRAIN CLEANER FOR SALE.

This machine will thrash and clean from 25 to 50 bushels per hour, dependent on the power used, and requires only four hands to attend to it in its operations. It may be used in the field or under cover, as most desirable, and can be easily moved from place to place. The horse power may be attached to any other machinery when not in use for the Thrasher and Cleaner. The original cost, complete, was $250; but having no further use for it, I will take $175. It is in perfect order and as good as new.

Address, post paid, HENRY WATSON,

1t* East Windsor, Conn.

HOVEY'S STRAW CUTTER FOR SALE.

The subscriber being appointed agent for this superior Straw Cutter, now offers them for sale of all sizes, and to move by hand or horse power, as may be wished. Prices vary according to size, from $12 to $35. A liberal discount to dealers.

Mr. Hovey is devoting himself exclusively to the manufacture of his Straw Cutter, and having made some recent improvements in them, it is believed that they are now the most perfect machines in market for general purposes. They have taken more premiums than any others ever exhibited at our Agricultural Shows and Fairs, and are universally admired for their strength, neatness, and the perfection and rapidity of their work. They are suitable alike for cutting straw, hay, or cornstalks.

A. B. ALLEN, 205 Broadway, N. Y.

GUANO, JUST RECEIVED FROM ICHABOE.

The cargo of ship Shakspeare, from Ichaboe, of very superior quality, landing at the Atlantic Dock, Brooklyn. It has been well ascertained, that this Guano is superior to any other, as it brings forward crops earlier, and is equally lasting. For general farming, it will increase the crops from **30** to **50** per cent.; and for market purposes, it will enhance its value at least **200**, and in some instances **400** per cent. 300 lbs. is sufficient for an acre. For sale in lots to suit purchasers, with books directing how to use it, by E. K. COLLINS & CO.

April 19th, 1845. 56 South street, N. Y.

E. K. & Co. have also for sale the best authenticated works on Guano, proving beyond doubt that it enhances the value of all crops 30 to 75 per cent. beyond its cost, and market gardening much more, bringing forward vegetables from two to four weeks earlier. Three hundred weight is the full average quantity used per acre. It is said also to be a preventive against rust, mildew, and the fly in wheat, and rot in potatoes.

☞ The work on Guano is now ready for delivery. m1

NEW AND IMPROVED POUDRETTE.

Made by the Lodi Manufacturing Co., may be had at the office of the Company, No. 43 Liberty Street, New York, or at their Factory on the Hackensack River, in New Jersey, or by letter *post paid*, addressed to "*President of the Lodi Manufacturing Co., New York*," or from the several agents who advertise it for sale, in the country.

Terms, *Cash on Delivery*.—For one Barrel, $2; 2 do., $3.50; 3 do., $5; 4 do., and up to 6, at $1.67 each; 7 do., $1.50, is $10.50; and $1.50 per Barrel for any greater quantity—delivered at any wharf or place in the City of New York, free of expense.

The Company have now on hand several thousand barrels of their new and improved article, composed of night soil, compounded with various other substances, every one of which is a good manure by itself.

The Poudrette made by this Company, is different from that made by any other concern in Europe or America. It contains no raw-peat, turf, or meadow mud, or any other inert substance; it is not like the old fashioned Poudrette, which will generally only last for a single crop, but its effects will last for years. It has been tried extensively for the last 2 years on Long Island, in Connecticut, New Jersey, and elsewhere, and has answered to such a degree, that already a very large increased demand for the next season has been manifested.

If used according to *directions*, it will be found *according to experiments* which have been made, to possess the following properties:—

1st. It is quicker in its operation upon vegetable matter than any *other Poudrette* or other Manure. It has ripened corn for table use in 60 days, and will ripen other crops several weeks sooner.

2d. It is more fertilizing; and its fructifying Powers are greater as proved by the increased yield; its effects are lasting, and by its powers of attraction, it absorbs from the atmosphere, humidity, ammonia, carbonic acid, and nitrogen, and retains their fertilizing properties, giving them out only as vegetation requires them for nutrition, thereby obviating the effects of a long drought.

3d. It will be found to be the richest, cheapest, and best manure now in use. *It saves in labor, its whole cost*, in comparison with the labor attending barnyard manure.

4th. Potatoes manured with Poudrette, are not subject to Rot, or other disease, as when manured with barnyard manure.

BOMMER'S METHOD OF MAKING MANURE.

One hundred agents are wanted immediately, to promote the general introduction of this valuable invention for the manufacture of Manure in New York, New Jersey, Virginia, Delaware, and in the six New England States. Unquestionable testimonials and responsible securities will be required for the faithful discharge of the duties of the appointment. Persons of suitable qualifications will find this both a useful and lucrative employment. Applications, if by mail, must be post paid, and directed to me at Westville, New Haven county, Connecticut.

Hundreds of testimonials from the best authorities, evince that no farmer who is sensible of the want of Manure, should remain destitute of this cheap and expeditious mode of its procurement. Any person forwarding five dollars, to the General Agent, with information of the writer's name, residence and address, shall be furnished with a copy of the method, with the right to use the same, without charge of postage.

ELI BARNETT, General Agent.

Westville, Conn., March 1, 1845.

HONEY BEES AND HIVES,

E. Townley, 124 Canal street, has the pleasure to inform the public that he has manufactured an entirely new and elegant Bee Hive, which has been rewarded the first premium for several successive years, and has been found, by numbers who have them now in operation, to be the most effectual preventive against the Bee Moth of any now in use.

Bees can be taught to work in glasses of various kinds, such as tumblers, jars, globes and shades. They can be adapted to family use, either in town or country; in parlors, bedrooms, attics, yards, or where fancy dictates, with perfect safety. Information can be had at the above place as to the best manner of changing bees from one hive to another, and also of making two swarms from one. And should any cause of complaint arise, it will be immediately rectified *gratis*.

Individual rights for constructing the above hive may be obtained for $5 cash, by addressing the subscriber; all letters to be post paid. Also, rights for towns, counties, or States, will be sold at liberal prices.

Also for sale, a Treatise on the cultivation and management of Honey Bees, by the subscriber. Price, 50 cents.

a1 3t EDWARD TOWNLEY.

BONE DUST FOR SALE.

Having been appointed Agent of the Portchester establishment, the subscriber will be ready at all times to supply orders for Bone Dust. It is ground entirely from fresh unbleached materials, and is of a superior quality.

Price of that of ordinary fineness, 40 cents per bushel.

Sawdust of Bones, 50 cts. per bushel.

This last is a very powerful and quick acting manure.

A. B. ALLEN, 205 Broadway, N. Y

CATALOGUE OF IMPROVED SHORT-HORNED CATTLE,

THE ENTIRE HERD OF E. P. PRENTICE,

To be sold at auction, at Mount Hope, near Albany, on Wednesday, the 24th day of June, 1846, at 10 o'clock, A. M.

Mr. P. takes leave to say, that if he could have made the sale sufficiently inviting, he would much have preferred to offer but about half this stock. But, to guard against the impression that the best have been selected, he begs to assure the public, that the entire herd shall be sold without reservation; except, as provided by his published advertisement, in order to retain the blood of some highly valued families, which have been secured at great expense and which could not be replaced, he will ask leave to bid, *openly*, on three or four individuals *only*, they first being designated.

☞The open numbers attached to the pedigrees, refer to Coate's Herd Book. Those inclosed in parentheses, or brackets, to this Catalogue, and the letters to the progenitors, whose pedigrees are given in the Appendix. Several of the cows and heifers, not yet calved, will come in before the sale, and at that time it will be made known when others are to do so, and by what bulls. The cattle may be inspected at any time previous to the sale, and any information relating to them will be most cheerfully given.

1. **FLORA**—Roan cow, calved June, 1837, and imported in 1839—got by Imperial 2151—d. Sophia, (Herd Book, vol. 3, p. 587,) by Waverly 2820—g. d. No. 21, bred by Mr. Mason, and got by Satellite 1420—g. g. d. by Cato 119—g. g. g. d. by Charles 127—g. g. g. g. d. by St. John 572. This cow is a very excellent milker

2. **CATY.**—White heifer, calved July 17, 1844—got by Fairfax (49) 3754—d. Flora (1.)

3. **CALF OF FLORA**, (1) by Fairfax (49) 3754.

4. **MOSS ROSE**, vol. 5, p. 704—Roan cow, calved January, 1837, and imported in 1841—got by Barden 1674—d. Violet, by Young Colling 1843—g. d. Violet by Remus 550—g. g. d. Pink by Sedbury 1424—g. g. g. d Beauty by Hollings 2131—g. g. g. g. d. Lingcropper by Partner 2409, &c. See Herd Book.

5. **COMELY**—Light roan heifer, calved February 11, 1845, got by Young Leopard, (A.)—d. Moss Rose (4) 704.

6. **CATHERINE**, vol. 5, p. 153—Red and white cow, calved May 17, 1839, and imported in 1841—got by Mr Jobson's Sir Robert 5181—d. Clara, by Reformer 2512—g. d. Cullton, by Don Juan 1923—g. g. d. by Lindrick 1170—g. g. g. d. by Sir Alexander, 591—g. g. g. g. d. by North Star, 459.

7. **BLAIZE**—Red and white bull calf, calved February 28, 1845—got by Young Leopard, (A.)—d. Catherine, (6) 153.

8. **MATILDA**, vol 5. p. 629—White, calved March 26, 1834—got by White Jacket 5647—d. Heart, bred by the late Thos. Hollis, Esq , at Blythe, Eng., and by him brought to this country, on his removal for settlement in ——.

Heart is said to have been a very extraordinary animal, not only in symmetry and general appearance, but in union of valuable, high bred properties. Mr. H. was offered, and refused $700 for her, on landing in New York.

Matilda took the first prize at the Fair of the Am. Institute in 1843. She has now in the yard with her, eight heifers and one bull calf, with fourteen of the next generation, and whether considered as individuals or as a family, with reference to form or quality, they are alike remarkable for combination in each, and sameness in all.

9. **SNOWBALL**, vol. 5 p. 629—White cow, calved May 13, 1836—got by Carlos (E.) 1787—d. Matilda (8) 629, &c.

10. **NUN**—Red and white cow, calved April 6, 1842—got by Leopard (D.) 4213—d. Snowball (9) 629, by Carlos, (E.) &c.

11. **MELISSA**, vol 5, p. 629—Red and white cow, calved April 24, 1837—got by Carlos (E.) 1787—d. Matilda, (8) 629, &c

12. **CAROLINE**—Red and white cow, calved April 28, 1840—got by Leopard (D.) 4213—d. Melissa (11) 629—g. d. Matilda (8) &c.

13. **CORA**—Red and white cow, calved March 6, 1841—got by Leopard (D.) 4213—d. Melissa (11) 629—g. d. Matilda (8) 629, &c.

14 **MEG**—Red and white heifer, calved June 28, 1844—got by Cato (B.)—d. Cora (13) by Leopard (D.) 4213—g. d. Melissa (11)—g. g. d. Matilda (8) 629, &c.

15. **TYRO**—Red and white bull calf, calved January 10, 1845—got by Young Leopard (A.)—d. Melissa (11)—g. d. Matilda (8) 629, &c.

16. **DAISY**, vol. 5, p. 629—Red and white cow, calved March 13, 1838—got by Leopard (D.) 4213—d. Matilda, (8) 629.

17. **NELL**—Red and white cow, calved January 30, 1842—got by Northumberland (F.) 4596—d. Daisy, (16) 629—g. d. Matilda (8) 629

At the State fair, in 1842, Nell took the first premium in her class, and again did so at Poughkeepsie in 1844.

18. **CALF** of Daisy (16) 629—by Fairfax (49) 3754.

19. **DIANA**, vol. 5, p. 629—Red and white cow, calved March 15, 1839—got by Leopard (D.) 4213—d. Matilda (8) 629.

20. **TECUMSEH**—White bull, calved March 17, 1844—got by Cato (B.)—d. Diana (19) 629—g. d. Matilda (8) 629.

21. **BETTY**—Red and white heifer calf, calved Dec. 5, 1844—got by Sultan (C.)—d. Diana (19)—g. d. Matilda (8.) 629.

22. **SALLY**, vol. 5, p. 629—Red and white cow, calved January 18, 1840—got by Leopard (D.) 4213—d. Matilda (8) 629.

23. **DUTCHESS**—White cow, calved May 11, 1843—got by Fairfax (49) 3754—d. Sally (22) 629—g. d. Matilda (9) 629.

24. **CALF OF** (23)—by O'Connell [50] vol. 5., p. 704.

25. **ROVER**—Red and white heifer, calved May 30, 1844—got by Young Leopard, (A.)—d. Sally, [22] 629—g. d. Matilda, [8] 629.

26. **CHARLOTTE**—Red and white cow, calved November 16, 1840—got by Leopard, [D.] 4213—d. Matilda, [8] 629.

27. **CALF OF** [26]—by Fairfax, [49] 3754.

28. **ADA**, vol. 5, p. 629—Red and white cow, calved October 16, 1841—got by Leopard, [D.] 4213—d. Matilda, [8] 629.

29. **CALF OF** [28]—by Fairfax, [49] 3754.

30. **JUDY**—White heifer, calved January 28, 1844—got by Fairfax, [49] 3754—d. Matilda, [8] 629.

31. **DUKE**—Red and white bull, calved January 4, 1845—got by Fairfax. [49] 3754—d. Matilda, [8] 629.

32. **APPOLONIA**, vol. 5, p. 43—Red and white cow, calved January 26, 1835, and imported in 1838—got by Albion, 2965—d. by Red Star, 4911—g. d. by Chance, 1806—g. g. d. by Shipperly, 2619.

Appolonia is a very extraordinary milker, giving from 24 to 30 qts. a day for months in succession, and never drying before parturition without great care and effort.

33. **LOUISA**—Roan cow, calved January 28, 1840—got by Leopard, [D.] 4213—d. Appolonia, [32] 43.

34. **BURLEY**—Red and white heifer, calved May 11, 1844—got by Young Leopard [A.]—d. Appolonia, [32] 43. So far as dam and sire are concerned, this must be all that can be desired for the dairy.

35. **SPLENDOR**—Roan cow, calved May 7, 1836, and imported in 1839, vol. 5, p. 959—got by Symmetry, 2723—d. Pomona, (bred by Mr. Cattley,) by Bedford Junior, 1701—g. d. by Isaac, 1129—g. g. d. by Whitworth, 1584—g. g. g. d. by White Comet, 1583—g. g. g. g. d. by a son of Kit, 2179

Splendor is a deep milker, giving from 24 to 30 qts. a day through the favorable season. She is the dam of Fairfax, [49] 3754.

36. **PEGGY**, vol. 5, p. 959—Roan cow, calved April 4, 1842—got by Leopard, [D.] 4213—d. Splendor, [35] 959.

Peggy is now with her first calf, (Peggy 2d,) and gives great promise of milk.

37. **PEGGY 2d**—Roan heifer calf, calved February 26, 1845—got by Fairfax, [49] 3754—d. Peggy [36] 959.

38. **RAMBLE**—Red and white heifer, calved May 21, 1844—got by Young Leopard, [A.]—d Splendor, [35] 959.

39. **CALF** of Splendor, [35] by Fairfax, [49] 3754.

40. **ESTERVILLE**, vol. 5, p. 389—Roan cow, calved Nov. 12, 1841—got in Eng. by Daniel O'Connell, 3557—d. Esterville 389, (imported in 1841,) by Alfred 2987, (afterwards sold to the King of the French,)—g. d. Amethyst, by Prince of Northumberland, 4926—g. g. d. Young Amazon, by Crusader, 934—g. g. g. d. Amazon, by Sultan, 1485—g. g. g. g. d. Bellona, by Mars, 411—g. g. g. g. g. d. Rolla, by North Star, 454. Bulled by Fairfax.

41. **JENNY**—Roan cow, calved June 12, 1841—got by Red Comet—d. Miss Scotson, alias Daisy, [bred by Samuel Scotson, at Toxteth Park, in England, and imported in 1840,] by Henwood, 4012.

Red Comet was out of Red Rose, by Young Albion, [imported by Thos. Addis Emmet, of New York,] by Harlem Comet—g. d by Sir Martin.

42. **JILT**—Roan heifer, calved August 16, 1844—got by Sultan [C.]—d. Jenny [41].

43. Calf of Jenny, [41] by Fairfax, [49] 3754.

44. **AURORA**, vol. 3, p. 258—Roan cow, calved May 24, 1835—imported in 1838,—got by William, 2839—d. Adelaide, 258, by Young Rockingham 2549—g. d. by Wellington, 2824—g. g. d. by Major, 2252—g. g. g. d. by Northumberland, 464.

Aurora is a great and rich milker.

45. **TIMOUR**—White bull calf, calved July 19, 1844—got by Fairfax, [49] 3754—d. Aurora, [44] 258.

46. Calf of Aurora [44]—by Fairfax, [49] 3754.

47. **DORA**—Red and white cow, calved April 28, 1841—got by Leopard, [D.] 4213—d the imported cow, Princess, (bred by R. C Lounds, Esq.,) by Henry, 4006—g. d. Beauty, by Fitz Form, 289—g. g. d White Princess, (bred by Mr. Hines,) by Cupid, 628—g. g. g. d. Young Princess, by Lionel, 1171, &c. See Herd Book, vol. 5, p. 805.

48. **MISS SMITH**—Red and white cow, calved August 10, 1837—got by Leopard, [D.] 4213—d. the imported cow, Susan, by Dutchman—g. d. Rosina, by Mr. Wetherell's North Star—g. g. d. by Old Comet. See appendix A.

49. **FAIRFAX** 3754—White bull, calved May 10, 1840—got in England, by Sir Thos. Fairfax, 5196—d. Splendor, [35] 959, by Symmetry, 2723—g. d. by Bedford, Jun., 1701—g. g. d. by Isaac, 1129—g. g. g. d. by Whitworth, 1584—g. g. g. g. d. by White Comet, 1583—g. g. g. g. g. d. by a son of Kit, 2179.

Fairfax took the first prize, as the best two year old, at the Fair of the State Agricultural Society in 1842; and the first, as the best bull of any age, at that of the American Institute, the same year.

He has not since been shown, but has been kept low, and a service. His dam, Splendor [35], is a very superior dairy cow. His sire, Sir Thos. Fairfax, was got by Norfolk, 2377—d. Miss Fairfax, p. 509, vol. 3, Herd Book, by Fairfax, 1023—g. d. Lilly, by Young Wallaby, 2312—g. g. d. by Young Dimple, 971—g. g. g. d. by Snowball—g. g. g. g. d. by Layton, a son of Mr. Charge's grey bull, 872.

"Sir Thos. Fairfax" has taken the following premiums, viz. at the best year old bull, at Otley, in April, 1838, three [3] guineas; as the best two year old, at Leeds, in 1839, twenty sovereigns; [at the same time, he won a match of 5 guineas, against Mr. Tempest's celebrated bull, "Dan'l O'Connell," which obtained the first prize, as the best bull of any age at the above meeting;] also, as the best bull of any age at the Yorkshire meeting, in August, 1840, the premium of 30 sovereigns; at the same time, beating that noted bull, Clementi, in a match of five guineas each, and has never been beaten.

Most of the cows named in this Catalogue, are bulled by Fairfax, 3754.

50. O'CONNELL—Roan bull, calved January 11, 1842, vol. 5, p. 704—got in England, by Sir Peter, 5173—d. Moss Rose, 704, by Harden, 1674—g. d. Violet, by Young Colling, 1813—g. g. d. Violet, by Remus, 550—g. g. g. d. Pink, by Sedbury, 1424—g. g. g. g. d. Beauty, by Hollings, 2131—g. g. g. g. g. d. Lingcropper, by Partner, 2409—g. g. g. g. g. g. d. Lady, by Holling's bull, 2148—g. g. g. g. g. g. g. d. Lingcropper, by Marsk, 418, &c.

APPENDIX.

A.

YOUNG LEOPARD—Red and white, calved Oct. 5, 1838—got by Leopard, [D.] 4213—d. the imported cow, Susan, by Dutchman—g. d. Rosina, by Mr. Wetherell's North Star—g. g. d. by Old Comet.

Susan was bred by Mr. John Singleton, at Elmsthorp, England, and imported in 1832, with the bull Copson. She was a very extraordinary milker, giving from 30 to 36 quarts a day, for several weeks in succession.

B.

CATO—White bull, calved May 3, 1842—got by Fairfax, [49] 3754—d. Diana [19] 629, by Leopard, [D.] 4213, &c.

Cato took the first premium in his class, at the State Fair, in 1842, and also at the American Institute, the same year. He has not since been shown. Was calved after the papers were sent forward for the last volume of the Herd Book.

C.

SULTAN—Roan bull, calved July 24, 1842—got by Astoria, 2048—d. Flora [1], (imported in 1839,) by Imperial, 2151—g. d. Sophia, vol. 3, p. 537.

D.

LEOPARD, 4213—Red and white spotted bull, calved in 1832; bred by Gen. Stephen Van Rensselaer—got by Ajax, 2944—d. Beauty, by Washington, 1566—g. d. Red Lady, by Washington, 1566—g. g. d. Pansy, by blaize, 76.

E.

CARLOS, 1787—By Charles, 878—d. Galatea, by Frederick, 1060—g. d. Graceful, by Major, 2252—g. g. d. Graceful, by Comus—g. g. g. d. Graceful, by Denton, 198.

F.

NORTHUMBERLAND, 4596—Red and white bull, calved in 1839—got in England, by Prince of Northumberland, 4826—d. Appolonia [32] 43, by Albion, 2965, a son of Scipio, 1421—g. d. by Red Star—g. g. d. by Chance, 1806—g. g. g. d. by Shipperley, 5120.

SALE OF FULL BLOODED NORMAN HORSES.

The subscriber having relinquished farming, will offer at public vendue, at his farm in Moorestown, Burlington county, New Jersey, nine miles from Philadelphia, on Tuesday, the 20th of May next, his entire stock of NORMAN HORSES, consisting of two imported Stallions, "Diligence" and "Buonaparte;" two imported mares—three full-blooded stud colts, one, two and four years old—two full-blooded Fillies, three and four years old—two Fillies by "Diligence," from a half-blood Canadian Mare, three and four years old, and one Filly four years old, by Diligence," from a well-bred English Mare, broke and kind to harness.

The undersigned deems it unnecessary to speak at large of the qualities of these horses, so much having been said of this particular importation (which is believed to be the only one ever made to the United States), in all the principal Agricultural papers. In a few words, they are the *Canada* Horse, on a larger scale, combining the form, activity and hardihood of that well known race, with greater size and strength. "Diligence" has been a remarkably successful Stallion; he has been exhibited at the Fairs of the Pennsylvania and New York Agricultural Societies, where he was not entitled to compete for the premiums, but received the highest encomiums from the Committees. At the Fair of the American Institute, in New York City, in October last, he received the Silver Medal of the Institute.

It is expected that a large number of the Colts of "Diligence" will be on the ground on the day of sale, some of which, no doubt, may be purchased.

EDWARD HARRIS.

Moorestown, Burlington Co., N. J.
March 15th, 1845.

al 2t

AGENCY FOR THE AMERICAN AGRICULTURIST.

Mr. Alonzo Sherman, of Trumbull, Fairfield County, Connecticut, is hereby appointed General Agent of the American Agriculturist, with authority to appoint Sub-Agents in any part of the United States; and we hereby recommend him to the attention of our friends wherever he may go, and hope they will extend such aid and assistance to him, as will forward the object in which he is engaged.

SAXTON & MILES, 205 Broadway, N. Y.

FARMS FOR SALE.

The Farm in West Groton, known as 60 acres in the North East corner of Lot No. 63 Locke, consisting of a Farm House nearly new, Barn, and about Forty acres of improvement surrounded by a good fence, and now occupied by Robert Armstrong. Price, $1,500. One Thousand Dollars can remain on Mortgage for Ten years, at legal interest, half yearly.

ALSO,

The Farm known as the State 100 acres in the South East corner of Lot No 2, Cicero, about a mile from the town of Brewerton, on the outlet of Oneida Lake, consisting of an improvement of 40 acres fenced, with log buildings, and 60 acres of Woodlands.

ALSO,

The Farm known as the State 100 acres in the South East corner of Lot No. 54 Hannibal, a short distance from the town of Fulton, on the Oswego River, good woodland, with a small clearing.

ALSO,

The Wood Lot known as the State 100 acres in the South Eas corner of Lot No. 5 Manlius, a few miles from Syracuse, and in a good neighborhood.

ALSO,

Wood lot	known	as the S.	100	acrs.	in the	S. E. c.	of	Lot No.	7	Solon.
“	“	“	“	“	“		“	“	19	“
“	“	Survey	50	acres	“	“	“	“	25	“
“	“	“	50	“	“	“	“	“	29	“
“	“	“	50	“	“	N. W.	“	“	36	“
“	“	“	50	“	“	N. E.	“	“	39	“
“	“	“	50	“	“	S. E.	“	“	58	“
“	“	Sub. 1	83	“	“		“	of lot	76	“
“	“	“ 7	30	“	“		“	“	“	“
“	“	Survey	50	“	“	N. W. cor. of		“	98	“
“	“	State	100	“	“	S. E.	“of	“	65	Virgil
“	“	Survey	50	“	“	N. E.	“	“	68	“
“	“	“	50	“	“	N. W.	“	“	69	

Apply to JAS. L. BRINCKERHOFF,
No. 32 Laight Street, city of N.Y.
f1 6t

EXOTIC, NURSERY, AND HORTICULTURAL GARDENS,

Flushing, L. I., near New York.

The subscribers having established a Nursery with the above title, with the determination of conducting it in the very *best* manner in all its departments, offer for sale, *at reasonable prices*, a *select* variety of

FRUIT AND ORNAMENTAL TREES,

Hardy Shrubs, Herbaceous Plants, Grape Vines of all the best kinds, superior Strawberries, Fastolff Raspberry, Gooseberries, &c.

BULBS AND TUBERS, SUPERB CARNATIONS, DAHLIAS, &c.

AND A MOST EXTENSIVE AND CHOICE COLLECTION OF

GREEN-HOUSE AND STOVE PLANTS,

Embracing everything *new* and *beautiful* in that department, personally selected in Europe during the past summer, of

ROSES AND CAMELLIAS.

We have a very choice collection of the former, full 1,000 varieties, and of the latter nearly 300, all in fine order.

Catalogues of the above will be sent gratis to all applicants, *post paid*, and every order promptly executed. From unknown correspondents, a remittance, draft, or satisfactory reference expected.

VALK & CO.

☞ Such papers as we send the above advertisement to marked, will please give it three insertions, and send bill to this office

al 3t

PREMIUM EAGLE, SUBSOIL, AND OTHER PLOWS.

The subscriber having been appointed sole agent in this city for the sale of the celebrated Premium Plows, made by Ruggles Nourse & Mason, of Worcester, Massachusetts, now offers them at the manufacturers' home prices. They are calculated alike for the Northern Farmer and Southern Planter, and embrace all varieties. Price from $3 50 to $11 50.

The great number of premiums which these plows have obtained at the most important plowing-matches, and the universal satisfaction they have given wherever introduced, render it unnecessary to particularise their merits. They are made of the best materials, are highly finished, and combine light weight and easy draught, with great strength and durability. Though the first price is higher than the common kinds, they do their work in so superior a manner, and with a draught so much easier for the team, that they are universally preferred where known. It has been proved, that a single pair of oxen, horses, or good mules attached to the Eagle plow, No. 1, in any reasonably friable soil, will easily turn a furrow of 6 inches deep by 12 inches wide. In addition to the above good qualities, being made of the best materials and highly finished, these plows last much longer than the common kind: they are consequently much the cheapest in the end.

SUPERIOR HAND AND HORSE CULTIVATORS.

These are made at the same manufactory. Price $3 to $6 50.

NEW AND IMPROVED DRILLING MACHINE.

This is calculated for sowing all kinds of seeds. Price $10.

A. B. ALLEN, 205 Broadway, N. Y.

IMPORTANT SALE OF FIRST-CLASS SHORT-HORNS.

MR. WETHERELL will sell by auction, without reserve, at WISETON, near BAWTRY, NOTTINGHAMSHIRE, on SATURDAY, the 13th day of SEPTEMBER next, about FIFTY COWS and HEIFERS, and about EIGHT BULLS and BULL CALVES (including the Bull Wizard), the property of the Right Hon. Earl Spencer.

This sale presents to breeders of first-class Short-Horns of the purest blood an opportunity not to be lost; and, for the satisfaction of purchasers that a fair average of the herd will be selected for sale, Mr. Wetherell takes this opportunity of giving a copy of a letter he has received from his lordship in answer to his inquiries as to the animals for sale:—

"Wiseton, February 17, 1845.

"Sir,—You ask me what is the sort of sale I intend to have. I had long endeavored to raise the number of my breeding cows and heifers to 100. I succeeded in this about three years ago; but I find, from the experience I have had since, that my farm here is not equal to carry so many. Even, indeed, if it was, I should be very much overstocked, as by next September I shall probably have 132 cows and heifers old enough to breed from, and between 60 and 70 younger heifers. I intend, therefore, to offer about 50 cows and heifers, and some bulls, to be sold by auction, on the 13th of September. I intend that those offered should be a fair sample of my herd—some as good as any I keep for myself—and I shall also keep several for myself not so good as the worst I offer for sale. They will not all have long pedigrees, but as large a proportion of them will as there ever has been in my general herd. In short, my endeavor will be, as I have said, to make those offered for sale a fair average sample of the whole number I now have.

"I am, sir, yours, &c., SPENCER."

Catalogues, with every information, will be ready by the early part of July, and may be had gratis, on application to Mr. Hall, Wiseton, or to Mr. Wetherell, Durham.

Durham, England, 20th February, 1845.

VERY IMPORTANT SALE OF FITST CLASS SHORT-HORNED CATTLE.

MR. WETHERELL will sell by auction, without reserve, at GATE BURTON, NEAR GAINSBOROUGH, LINCOLNSHIRE, on FRIDAY, the 12th of SEPTEMBER, the entire HERD of SHORT-HORNED CATTLE, the property of Wm. Hutton, Esq.; consisting of upwards of 60 Bulls, Cows, and Heifers, of different ages, which are principally descended from the following first-class Bulls, viz.:—Sir Henry (1446), Cossack (1869), Rockingham (2550), Ganthorpe (2049), Gracchus (3917), and Lictor (6128.)

Durham, England, Feb. 25, 1845.

EXTENSIVE AND IMPORTANT SALE OF FIRST RATE SHORT-HORNED CATTLE.

MR. WETHERELL will sell by auction, without reserve, at WALKERINGHAM, near BAWTRY, NOTTINGHAMSHIRE; on MONDAY, the 15th of SEPTEMBER next, the entire HERD of SHORT-HORNS, the property of Mr. Henry Watson, consisting of upwards of 60 Cows, Heifers, and Bulls, of different ages, including the well known bull Lord Adolphus Fairfax, and many of his progeny.

Durham, England, Feb. 20, 1845.

SIMMOND'S COLONIAL MAGAZINE
AND FOREIGN MISCELLANY,

Price 2s. 6d.

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Will be found to be the only Register and Chronicle of Recent Occurrences in

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NEW ZEALAND,
MALTA AND GIBRALTAR,
THE EAST INDIES AND CHINA,
&c. &c.

All persons having friends abroad, or interested in the British Colonies, may rely upon receiving through this medium the latest and most authentic accounts from each on the 1st of every month.

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JACKS FOR SALE.

Three large and fine imported Spanish Jacks. Their colts are large and promising Also, some large and fine Jennetts. Apply, post paid, to the editor of this paper, or to

ml JOHN A. POOL, New Brunswick, N. J.

AFRICAN GUANO.

For sale, a superior article of African Guano, just received from the island of Ichaboe. Price, $40 per ton of 2,000 lbs., or $2.50 per 100 lbs. This Guano has been analyzed by Mr. J. E. Teschemacher, of Boston, and the same can be seen at our office.

ASHBEY POOL & CO.,
105 South street, N. Y.

SCOTCH PLOW.

Just imported, and for sale, a very superior Scotch plow, made entirely of iron. An extra point, mould-board, &c., accompanies it.

A. B. ALLEN, 205 Broadway.

SPLENDID NEW ROSES, &c.

WM. R. PRINCE & CO., sole proprietors of the original Linnæan Garden and Nurseries, at Flushing, offer for sale the most splendid collection of Roses that can be selected from every country, and which now occupy four acres, all systematically arranged as per their New Descriptive Catalogue (34th edition) Among them are La Reine, $2, and extra large plants, $3; Cloth of Gold, $2, and extra large, $3; Ebene or Ebony, the blackest of perpetuals, $3; Solfataze, $2; Souvenir de Malmaison, $3; New Village Maid, 75 cents; Madame Hardy, white, 62 cents; and every other rare variety, all strong plants and not pigmies. Among them are 40 varieties of Moss Roses, and 250 varieties of Tree Roses. Dahlias, of all the most beautiful varieties, at $3, $4.50, and $6 per dozen kinds; part of them are dry roots, each of which will make several, and the others are potted plants. Every article is sold at the lowest rates, and their precision is guaranteed. Reference for all other Plants and Trees, and their prices, can be made to the catalogues.

Flushing, May 1st, 1845. ml 1t

POUDRETTE, AND EIGHTY BUSHELS OF CORN PER ACRE.

FIFTEEN bushels of Poudrette prepared by the *New York Poudrette Co.* increased a crop of corn in Tully, Onondaga Co., from 35 or 40 bushels, to *eighty* bushels of *shelled* corn to the acre! I hope those using my poudrette the present year, on *corn, vegetables, oats, buckwheat,* and *turnips,* will *satisfy themselves* as to the *relative value* of it compared with any other manufactured, as well as with Guano, and give me the results at the end of the season.

Present price, *delivered,* 1 barrel, $1.88; 2 do., $3.50; 3 do., $5; and 7 barrels and over, $1.50 per bbl.

☞ *Orders,* with the cash, will be *immediately* attended to, if addressed to *N. Y. Poudrette Co.,* or

ml 2t* D. K. MINOR, 23 Chambers street, N. Y.

MULBERRY TREES AND SILK WORM EGGS FOR SALE.

MASSACHUSETTS has granted a bounty to encourage the growth of silk. In anticipation of which, a large quantity of Canton Cuttings, Canton and Asiatic Seedling, and of more mature ages, also, Peanut Silk Worm Eggs, have been preserved, and may be had at reduced prices. Three or four Mulberry Plantations and Cocooneries to rent or on shares. Inquire of

Northampton, Mass., April 10, 1845. D. STEBBINS.
ml 1t*

PERUVIAN GUANO.

For sale, a few bags of a very choice article of Peruvian Guano, direct from the island of Chincha. Price $3 per 100 lbs

A. B. ALLEN, 205 Broadway, N. Y.

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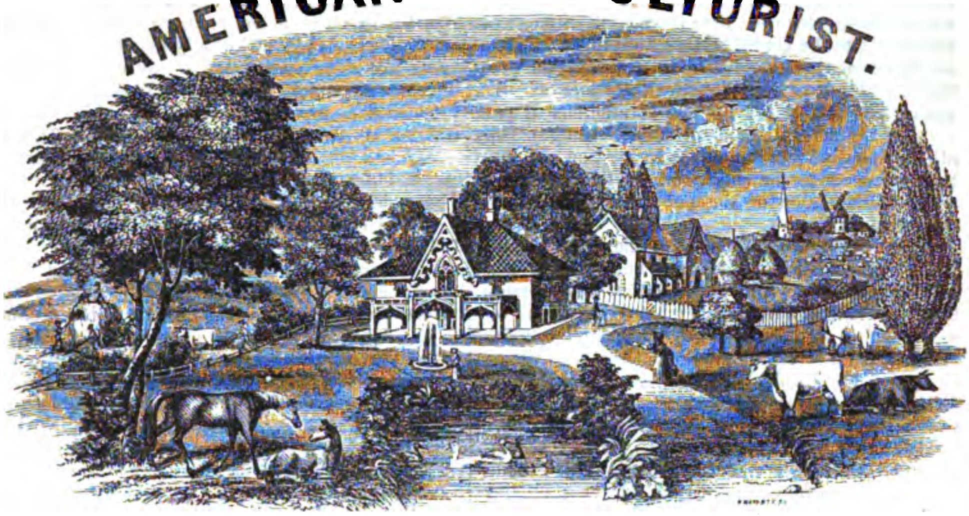
AMERICAN AGRICULTURIST.



Agriculture is the most healthful, the most useful, and the most noble employment of man.—Washington.

VOL. IV. NEW YORK, JUNE, 1845. NO. VI.

A. B Allen, Editor. Saxton & Miles, Publishers, 205 Broadway.

FOOD FOR THE HARD-WORKING SEASON.

Every good farmer knows, if he wishes to have an animal well prepared for enduring work, that it must not only be well fed, but the food must be of the proper kind; otherwise it will get too fat or too poor, soft and watery, or carry too much bulk in its stomach. Just so it is with man; and to be able to accomplish his task with ease and energy during the most busy part of the season, he should pay particular attention to his food. His object should be to acquire the *greatest degree of muscle* with as little fat and bulk as possible. In fact, to use a trainer's phrase, he must get into *condition*, which will add greatly to his strength, and ease and quickness of motion. To acquire muscle, then, we must eat such food as makes it in the greatest perfection.

The lean of venison, beef, mutton, pork hams, and shoulders, is the best meat for this purpose; next comes veal, poultry, and the drier kinds of fish; side pork is too fat and gross, and should be avoided as much as possible, especially during the summer season. It is decidedly better to eat meat fresh: salted, it makes one so thirsty that he is apt to overload his stomach with water, and thus become heavy and sluggish. Oatmeal is undoubtedly the best for bread; but as the American farmer is not accustomed to it, he prefers wheat, then rye, with both of which a slight quantity of Indian meal should be mixed. We have heard barley bread much vaunted; yet as we have little experience in it, and that not of the most favorable kind, we do not recommend it; and if we did, we doubt whether our farmers would consider it fit for their tables. Oatmeal cakes we have often eaten, and relish them highly. Corn-bread has a large per centage of oil in it, and for this reason it is rather too freely used at the west and south. Rice is much used at the south for bread, and should be placed before corn. Of vegetables, beans and peas stand far higher than any other within our experience; mealy potatoes come next on the muscular list; but as to most of the other kinds of vegetables, they are too watery, and should be eaten sparingly during the hard-working season. Cheese is good, especially that made from skim-milk, as it abounds more in caseine than the other kinds. Butter should be avoided as too fat. Milk is not solid enough for hard work.

The best drink we ever found to quench thirst, was water slightly sweetened with sugar, and then made a little tart with pure cider-vinegar. It is also one of the most wholesome of drinks. Weak tea or coffee, with milk and sugar in it, is usually healthful drunk with breakfast and supper.

Half an hour to an hour's rest should always be taken after dinner; this gives the stomach an opportunity of digesting the food well, which is important to a hard-working man.

ANNUAL REPORT OF THE COMMISSIONER OF PATENTS.

Again is the very able Annual Report of Hon. Henry L. Ellsworth laid upon our table. Among all the Reports of the Government Departments, none will be found of such general interest, and none affording such comprehensive and useful intelligence, as that which emanates from the patent office, under its present efficient head. A minute or general description of patents registered, would afford dry, partial, and meagre information; and wisely leaving the merits of these useful inventions to be trumpeted by the inventors themselves, the Commissioner devotes almost the entire mass of his Report, of 518 pages, to the dissemination of various agricultural information. The locality and extent of production of each article; the best species for this purpose; the most approved method of cultivation; the new purposes to which they are devoted; the introduction of improved varieties into the United States; improved herds of animals; markets, and modes of preparation for them; and information statistical, economical, interesting and useful, fill up this voluminous Report. To give the table of contents alone, would occupy all the room we have to devote to it; and we must limit ourselves to noticing some of those items, to which the attention of the public is not yet sufficiently awakened.

Hemp.—The total of hemp and flax raised in the United States for 1844, is set down at 22,800 tons, of which Kentucky produces 12,000, and Missouri 9,000. There is a discrepancy between this and former Reports, which we do not understand, notwithstanding what is said by the Commissioner of the exclusion of *Flax* in the last year's estimate. That for 1841, prepared from corrected returns, taken with the census for the former year, is given at 101,181 tons; for 1842, 158,569 tons; for 1843, 161,007 *pounds.* (tons?) As there are returns from only five States for the last year, while for each of the preceding, some of the States are credited with large amounts, we must conclude, the amount reported is short of the entire product of the Union.

The cultivation of hemp is still in its infancy in this country, and we notice with regret, that our farmers are yet working with the short end of the lever. They produce an over supply of the *dew-rotted*, an inferior, low priced article, while of the *water-rotted*, which bears a high price, and is of almost unlimited demand, there is a large deficiency. This is manifest from the returns of the Secretary of the Treasury's Department, Doc. 109, from which it appears that our total imports of hemp, and its manufactures, for the year ending September, 1838, were $1,453,960; for 1839, $1,697,221; for 1840, $1,715,649; for 1841, $2,371,141; for 1842, $1,292,592; for the nine months ending June 30, 1843, $671,000.

The demand in England, France, and other foreign countries, where hemp is not, nor will probably ever be cultivated to any extent, renders this an article of great and growing consequence to this country. We hope to see the ingenuity, energy, and intelligence of our citizens, in the hemp-producing regions of the south and west, given to this subject, by the introduction of new and improved methods and machinery for preparing it for market, and its increased production, not only to the full supply of the wants of this country, but to its exportation abroad to a large amount. Price of dew-rotted, $75 to $100; water-rotted $150 to $170 per ton.

Flax.—This is another important product, hitherto but little cultivated in the United States, in comparison with what might be profitably raised. Within the last few years, the application of machinery to the manufacture of this article, has reduced the expenses of preparing its fabrics so as to become a profitable object of attention. It is quite an object of cultivation, independent of its value for manufacturing. An acre will yield in seed from 8 to 15 bushels, worth from $1 to $1.50 per bushel. The yield of a bushel in oil (linseed), is about two gallons; after this is expressed, the residuum, known as oil-cake, is of the highest value as food for fattening animals.

The mode of preparing flax for market in this country, is, like that of hemp, the worst that could be adopted; being universally *dew-rotted*, while its value would be nearly doubled by water-rotting, at the same expense. Thus, while last year's price for Flemish flax, was 14 cents per lb., Irish 12½, and Russian 10, American was worth but 6½ to 7½ cts.

Silk.—This important branch of our agricultural and manufacturing industry, is gradually advancing. The production of silk cocoons in 1842, was estimated at 244,124 lbs.; in 1843, at 315,965 lbs.; and in 1844 at 396,790 lbs. The details of flax and silk are quite meagre in the Report; yet enough is given to show the steady progress in the former interests, and a considerable advance in the latter, which is destined, at no future day, to become one of the most important of the industrial occupations in North America. Our soil and climate are eminently adapted to the silk-worm, and the foliage which furnishes the material from which to spin its silken fibre; and we have unoccupied labor, land, skill, and capital sufficient to supply the millions we annually pay to foreign countries for this luxury. When we take into consideration, that the labor required through nearly the entire range of production and preparation for market in the finished fabric, may be furnished from that portion of our citizens, women and children, whose time would otherwise be wasted, or less profitably employed, it affords matter of astonishment that we are not approximating supply to demand more rapidly than at present. Throughout the entire region of the Alleganias, till they dip into the Gulf of Mexico, our climate and soil are eminently adapted to growing silk with profit. If this could take the place of cotton, to the extent of furnishing our own consumption, and the millions annually required in Europe, a great accession to the wealth of this country would be realized. Not one serious impediment exists to its unlimited extension. With the increase of supply at home, increased demand will inevitably follow. An article we can easily produce, which is every way suited to extensive use, will certainly be more generally demanded among ourselves, especially as the price paid for it goes to the enriching of our own citizens, and thus being kept within the country, will enable us to indulge in this luxury to an extent which would otherwise be beyond our reach.

Madder is another agricultural product we have hitherto raised to an extent altogether insufficient to meet the growing demands of our own manufactures. This root yields a dye indispensable to our woollen and other manufactures, and is a highly profitable crop for sale, besides its great value as feed for stock. It requires three or four years to mature, which is, perhaps, one reason for the slow progress its cultivation has thus far made in this country. Yet, when fully matured for harvesting, it gives a return sufficiently large to satisfy the most grasping aspirations of our farmers. Land devoted to this purpose in Ohio, has yielded a nett profit of $200 per acre in four years; and the cultivator thinks, with the experience acquired from his first attempt, he could easily increase it 50 per cent. But we have given such full and minute information on this subject in our preceding volumes, that we shall refer the curious reader to them for further information.

Indigo has thus far been neglected, since the early and successful efforts of the colonists in producing it. The consumption is annually extending in this country; and the time, we trust, is not far distant, when this will be made an important, as it no doubt will be found a highly profitable article of culture.

Woad.—In connection with materials for dying, we mention this as an important object of attention in this country, though not alluded to by the Commissioner. It is to a certain extent a cheaper, yet efficient substitute for Indigo.

Corn-stalk Sugar.—This product is still in its infancy; and as in the case of all young products, its childhood must be carefully nurtured to bring it to a successful maturity. There is no difficulty in obtaining a satisfactory yield of saccharine matter; but the obstacle thus far has been, to produce it in any other state than that of syrup or molasses. Many instances, however, occur, of its conversion into fine, crystallized sugar. What has once been done, may under similar circumstances be done again. We infer, therefore, that there are some undetected points essential for producing sugar, which it is necessary to note carefully and carry into practice, to insure success at all times. Mr. Soule, of East Boston, Mass., suggests, "that at one period of its growth all the saccharine matter of the stalk is nothing but grape sugar, and that this passes gradually to the state of cane sugar during the progressive developments of the plant. If, therefore, the plant is cut too early, no degree of care in clarifying and boiling the juice will enable the operator to bring it to a crystalline state. It is important too, I imagine, that *all* the stalks should be sufficiently ripe; for should any considerable quantity be below the proper degree of ripeness, their juice, when mingled and boiled with that of the stalks which have reached that degree, will act as a leaven in reconverting to grape sugar the crystallizable sugar of the latter.

"The great desideratum, then, in this matter of corn-stalk sugar, I believe to be, to ascertain more precisely than has yet been done, what is the most suitable treatment for the stalks in the successive periods of their growth, and what is the best time to cut them."—*Report*, p. 307.

This matter is under full investigation by the Yankees, and we trust for a speedy Yankee solution of it, as they generally *guess* every subject out *right* before they have done with it.

Potato Starch is extensively manufactured in the three north-eastern States of New England. When this is done, the farmer receives from 18 to 25 cents per bushel for his potatoes, which makes a profitable crop.

The Potato Rot is extensively treated in the Report, and a great many conflicting solutions of this important question are given from various sources on both sides of the Atlantic Truth may lie somewhere between them, but its cause has not hitherto been successfully detected in a manner that admits of its application to all cases. Is it the seed, soil, or season? One, or all combined? The question remains to be answered. But whatever it may be, it is probable, that a judicious selection of the two first, with the addition of some of the saline manures, and careful cultivation, will almost entirely remove it. When it is considered that our annual production reaches the enormous extent of 100,000,000 bushels; the saving of even 10 per cent. of the entire crop, becomes a matter of national importance.

Potato Sugar from potato starch is suggested, in remarks from the celebrated Dr. Ure; but we opine this article is not destined to become an article of attention for many years to come; nor until chemistry has made more advances towards the ready and economical conversion of the three homogeneous compounds, of gum, starch, and sugar, into each other. than has yet been realized.

Okra is extensively cultivated in the Southern and some of the middle States, as an article of food, and it is suggested by Mr. J. F. Callan, of Washington, that it is destined ere long to expel the use of imported coffee. He says; "*its ripe seeds burned and used as coffee cannot be distinguished therefrom*, and many persons of the most fastidious taste have not been able to distinguish it from the best Java. It is very easily grown, planted in May, in drills 4 feet apart, to the depth of an inch, at intervals of 8 inches, and cultivated like corn or peas. It sends up a strong stalk, and yields a great abundance of seed."

The Farmer's Encyclopædia has an article which we give in addition to the above.

"This plant is extensively cultivated in the West Indies, from whence it has been introduced into the United States. The pods are gathered green, and used in soups. They form an important ingredient in the celebrated gumbo soup of New Orleans, and other southern places. The pods are filled with seeds, and a mucilage of a bland and highly nutritious quality. Hence, the okra is frequently recommended to persons afflicted with dysentery and other bowel complaints, eaten either boiled or made into soup. When buttered and spiced, they afford a rich dish; and, with vinegar, they make a good pickle. The plant comes to maturity in the middle States, and the pods are abundant in the Philadelphia market. Those who become once accustomed to this wholesome vegetable, contract a great fondness for its peculiar flavor. In Louisiana and other southern States, a dinner is scarcely considered complete without okra cooked in some way or other; and the poor consider it one of their greatest blessings. The pods are of a proper size when 2 or 3 inches long, but may be used as long as they remain tender. If fit for use, they will snap asunder at the ends; but if too old and woody, they must be rejected. One peck of the tender pods are to be cut crosswise into very thin slices, not exceeding one-eighth of an inch in thickness; to this quantity, add about one-third of a peck of tomatoes, previously peeled and cut into pieces. The proportion of tomatoes may be varied to suit the taste. A coarse piece of beef (a shin is generally made use of) is placed in a pot or digester, with about 2½ gallons of water, and a very small quantity of salt. This is permitted to boil a few minutes, when the scum is taken off, and the okra and tomatoes are thrown in. With these ingredients, in the proportions mentioned, the soup is very fine. Still, some think it improved by addition of green corn, Lima beans, &c. The most essential thing to be attended to is the boiling, and the excellence of the soup depends almost entirely on this being done faithfully; for, if it be not boiled enough, however well the ingredients may have been selected and proportioned, the soup will be very inferior, and give but little idea of the delightful flavor it possesses when well done. A properly constructed digester is decidedly the best vessel for boiling this or any other soup in; but, where such a utensil is not at hand, an earthen pot should be preferred; but on no account make use of an iron one, as it would turn the whole soup perfectly black, instead of the proper color, viz.: green, colored with the rich yellow of tomatoes. The time usually required for boiling okra is about 5 hours; during which it should be occasionally stirred, and the ingredients mashed. When taken off, the original quantity will be reduced to about one-half, and the meat done to rags; the whole forming a homogeneous mass of the consistence of thick porridge."

Manure from the Spent Lye of Bleachers, consisting of lime and crude soda, or soda ash, with the oily and other matters with which it is associated after cleansing the fabrics, is considered by Mr. Pierce, of Norwich, Conn., a valuable manure. Where it has been tested, the crops have withstood the drought, while all around it were parched or destroyed. He estimates the quantity of lime annually used for bleaching purposes in New England, exceeds 6,500 casks; and of soda ash, 1,250,000 lbs., all of which is now wasted.

But we have not room to pursue the notice further at the present moment, but hope to be able to allude to it hereafter. With the information disseminated by the Report, the indefatigable Commissioner has distributed innumerable packages of rare seeds, from every quarter of the globe, and more particularly improved varieties, which have become the object of cultivation in some parts of the United States. Among them we notice spurry. We hope another season will enable him to add the Tussac grass, and others equally valuable from Texas and the prairies.

From the tables of this valuable report we subjoin all that is particularly interesting to the agriculturist.

State or Ter.	Bushels Wheat.	Bushels Rye.	Bushels Barley.	Bushels Oats.	Bushels Indian Corn.	Bushels Potatoes.	Pounds Tobacco.	Pounds Cotton.	Pounds Sugar.	Pounds Rice.
Maine.	628,000	176,000	260,000	1,422,000	1,738,000	12,304,000	....	....	266,000	....
New Hamp.	588,000	405,000	117,000	1,765,000	1,662,000	4,643,000	....	....	1,928,000	....
Mass.	210,000	660,000	141,000	1,687,000	2,816,000	4,050,000	103,000	....	425,000	....
R. Island. . .	4,000	49,000	49,000	182,000	636,000	812,000	....	....	....	....
Conn.	104,000	1,122,000	25,000	1,496,000	2,408,000	2,117,000	661,000	....	47,000	....
Vermont. . .	776,000	306,000	49,000	3,266,000	1,440,000	6,158,000	....	....	4,383,000	....
New York. .	14,975,000	4,044,000	2,164,000	31,135,000	19,468,000	17,703,000	....	....	12,135,000	....
New Jersey.	875,000	2,569,000	10,000	4,271,000	6,966,000	2,067,000	....	....	....	....
Penn.	10,483,000	10,373,000	157,000	24,783,000	19,029,000	6,871,000	486,000	....	1,313,000	....
Delaware. . .	367,000	46,000	5,000	1,035,000	3,014,000	194,000	....	....	....	....
Maryland. . .	4,070,000	858,000	3,000	2,254,000	4,653,000	881,000	15,582,000	6,000	....	....
Virginia. . . .	10,805,000	1,310,000	94,000	14,812,000	38,960,000	2,374,000	33,574,000	2,683,000	1,407,000	3,000
N. Carolina.	2,461,000	255,000	4,000	5,346,000	22,330,000	3,615,000	406,000	51,628,000	8,000	3,823,000
S. Carolina.	1,460,000	60,000	4,000	1,400,000	13,640,000	3,360,000	53,000	49,700,000	28,000	83,616,000
Georgia. . . .	1,848,000	80,000	13,000	1,190,000	22,200,000	2,048,000	163,000	213,620,000	291,000	17,524,000
Alabama. . .	1,068,000	72,000	8,000	1,909,000	22,200,000	1,023,000	310,000	140,000,000	9,000	910,000
Mississippi. .	344,000	20,600	2,000	1,081,000	2,709,000	3,378,000	176,000	195,240,000	....	1,144,000
Louisiana. .	......	2,000	....	138,000	7,600,000	1,443,000	....	154,806,000	160,000,000	4,715,000
Tennessee. .	6,950,000	366,000	5,000	7,841,000	61,100,000	2,051,000	33,736,000	39,600,000	460,000	10,000
Kentucky. .	3,974,000	2,316,000	14,000	11,901,000	47,500,000	1,371,000	57,555,000	880,000	2,447,000	19,000
Ohio.	15,969,000	840,000	191,000	20,393,000	48,000,000	4,847,000	6,888,000	....	4,380,000	....
Indiana. . . .	5,419,000	210,000	32,000	11,585,000	24,500,000	3,573,000	3,200,000	....	7,365,000	....
Illinois. . . .	3,380,000	136,000	92,000	10,798,000	19,680,000	3,095,000	1,062,000	250,000	542,000	....
Missouri. . .	1,144,000	77,000	10,000	4,535,000	12,500,000	972,000	12,495,000	180,000	396,000	....
Arkansas. .	2,111,000	11,000	1,000	396,000	7,500,000	611,000	....	14,400,000	3,000	7,000
Michigan. . .	4,237,000	70,000	158,000	4,013,000	4,300,000	5,359,000	....	....	2,611,000	....
Florida. . . .	1,000	....	....	10,000	1,100,000	300,000	195,000	9,120,000	373,000	708,000
Wisconsin. .	728,000	4,000	17,000	1,000,000	560,000	853,000	....	....	216,000	....
Iowa.	595,000	7,000	2,000	568,000	1,690,000	469,000	....	....	71,000	....
Dis. of Col. .	13,000	6,000	....	15,000	44,000	51,000	....	....	....	....
Total.	95,607,000	26,450,000	3,627,000	172,247,000	421,953,000	99,493,000	166,705,000	872,107,000	201,107,000	111,759,000

In his tables, Mr. Ellsworth also adds, that the Hay product is 17,715,000 tons; Buckwheat, 9,071,000 bushels; Silk, 396,790 pounds, and Flax and Hemp, 22,800 tons.

* * *

RESIGNATION OF THE OFFICE OF COMMISSIONER OF PATENTS.—We regret to learn that the Hon. Henry L. Ellsworth has resigned the important office which he has so long and ably filled under the general government at Washington. Few in their official stations have given so much general satisfaction to their countrymen as Mr. Ellsworth; and his untiring efforts in behalf of the great and important interest of agriculture, have added a stimulus to it that will long be maintained, whatever may be the course of his successor. We understand that Mr. Ellsworth retires to his large estate on the Wabash, with the intention of cultivating it to its highest extent. He will now be able to put in practice many of his own valuable suggestions to others; and we have only to add, that we wish him success, health, and happiness, and shall feel as highly honored by his private, as we have heretofore been by his public communications.

* * *

MILDEW, OR RUST.—When grain is struck with this, mow it down as fast as possible, and cure it for fodder. The straw will be worth something at least for the stock, whereas, if left standing a short time, both straw and grain become an utter loss, except for the manure heap. But it is frequently found, though cut down so green, that the berry fills out unexpectedly well after mowing, and sometimes gives a fair crop when nothing was anticipated. Try it—nothing at least can be lost by the operation.

* * *

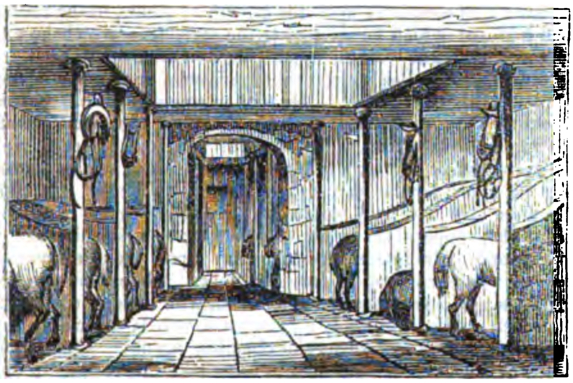
IMPORTATION OF ALPACAS.—The Southern Cultivator is in error in supposing that Alpacas can be brought from Peru for $20 per head. We have made a calculation in this matter with some of our merchants engaged in the South American trade, and find that it would cost at least $50 per head to transport them here. Taking the first cost of obtaining them in Peru, food, freight, attention on their voyage, and probable loss by death, we doubt whether they could be imported for less than $75 to $100 each. We are of opinion now that it would be nearly as cheap to bring them from England, and we hope yet to induce some of our wealthy friends to make up a purse for that purpose. There are many persons in this city who would never feel the giving of $25 each for this purpose; and if a purse of $1,000 could be made up, we would undertake to get out a small flock, and breed them here for the benefit of the country. Will any of those who are so richly favored by fortune respond to this proposition?

STABLES.

As all farmers keep horses, they should know how to lodge them, and do it well. We propose to give our views (illustrated) of what should be a good stable. To do this in one number would occupy too much space. We will therefore do it in detail. Light and ventilation are of the first importance. In the present number we will speak of the proper lighting of stables. If they are not lighted at all, the horse's eyes are weakened, so that he cannot endure light when exposed to it, and the longer the confinement the greater the inability; but it is equally important to light properly. Many a horse has been blinded by the improper admission of light or its exclusion. The window admitting it should not be placed before the horse. A stream of light coming in through a small aperture, and especially if from the direction of the sun, tries the eye most severely—the smaller the window and the larger the stable, the worse the effect. If the light come in directly in front, then by contrast the space before the horse on which the light does not fall is dark, and the eye is rendered incapable of adapting itself to the faint light on the places where the light does not directly fall, by reason of the contraction of the pupil. In the dark or twilight, the pupil is dilated; in the light, contracted; and the more intense the light, the greater the contraction. For these reasons, the light should not strike the eye in front when the horse is in the stable. If the window be in front of the horse, he is constantly gazing out at it, and thus prevented taking his rest properly. Again, the light should not come in from one side, as one eye is dilated and the other contracted. This in the end leads to different capacities of the two eyes.

The light should enter the stable at the rear of the horse. In single rowed stables this is very easily arranged where the stable will admit it, by bringing in the light from the opposite side from the stalls; but this cannot be done in double rowed stables. In such there is but one way to light them properly, and that is from the roof. But the admission of light in this manner is the best in all stables. The light is diffused and subdued; it reaches every part of the stable. The horse cannot look out. The eyes are dilated and contracted alike. The cut below illustrates our views. The aperture above not only lights the stables, but assists greatly in their ventilation.

Lighting Stables.—Fig. 50.



Horses have eyes defective and liable to derangement as well as man. Hence shying and various defects in horses growing out of their visions. Then care should be taken not to increase the difficulty. It is said that horses thrive best in the dark! When a horse is brought from a dark stable to the open air he sees indistinctly; he stares; carries his head high and steps high. Well if he fats more rapidly, he grows blind at the same time. Dark stables are always dirty; for lazy men will not clean out what is not seen. Dark stables are the resort of the *dishonest* dealer to cover defects. A stable at best is a bad restraint upon a horse; then make it as good as possible. Let not the horse be blinded as well as injured otherwise.

The window should be large, and be made to open and shut, and so arranged as to light the whole stable equally. Such windows serve a double purpose—they give light and sweeten and purify the air.

FENCES.—No. 3.

As the first settlers of the United States came principally from Holland, the south of England, and France, where few fences exist, it is obvious that they would never have fastened this burthensome and oppressive system upon themselves, except from the necessity of the case; or could they have first settled prairie instead of woodlands. The range for cattle in the forest was unlimited; and as this was the only means to support them at first, they were allowed to run at large. Necessity, then, compelled them to fence in their little patches of cleared land, where they cultivated their crops for family sustenance. These patches, hard won from the forest, gradually enlarged with the increase of population; till at last, in the old States, no more forest was left than just sufficient for wood and timber for the inhabitants. When it came to this, or even before, it is plain that the fencing system should have been abolished; but now law and custom had so long maintained them, that scarce the thought of such a thing would enter into the heads of the occupiers of the soil. They were born under the system of fences, educated under them, and the probability is, that ninety nine farmers out of a hundred in America would not believe that a country could exist without them. Yet this outrageous tyranny and tax is just like any other to which people are born and bred, and to which they naturally and patiently submit, with the exception of a few solitary murmurs, till they are enlightened as to their true interests; they then arise in their might, and shake off the intolerable burthen which presses upon them. Fencing is like the press-gangs of England—the conscription of France—the feudalism of some parts of Germany—and the slavery of Russia—or the right of property and life which an Eastern despot holds over his subjects. Tyranny and its effects are the same, no matter whether it is exercised by one man or a few over their fellows, or by the ignorance or wilfulness of many over themselves —in all instances the *people suffer alike.* These are plain truths, told in a downright blunt manner; and the consequence is, that many of our readers are very angry. This we expected at first; but we shall look to time and reflection to modify these feelings; and we have no doubt we shall live to see the day when we shall be thanked instead of blamed for what we have written upon the subject of fences.

Suppose that one man has a farm which it is much more profitable for him to cultivate in grain than grass; of course he does not wish to keep much stock—they would be a loss to him. Another, some little distance off, has land which it is most profitable to keep in grass, and stock is consequently his most profitable crop. Very well; it is a *free* country, and each follows his own interest, and does as he thinks proper. But then comes the odious tyranny and tax of law and custom, interfering between the two. The owner of the rich grazing land is not compelled to fence his stock IN, or to send a shepherd and dogs to keep them on his own bounds; but it is he who possesses the grain land who is forced to fence them OUT. Was ever anything more odious or unjust? We will say nothing of the liberty allowed a few vagabonds, to let their vicious and unruly animals run in the road, to gather up a half-starved and precarious existence. The argument is just as good where lands are so situated that it is difficult to maintain fences on account of fires; the scarcity and high price of timber; bleak situations, where the strong winds annually prostrate them; or the overflow of rivers or tides sweep them to destruction.

There are millions of acres of land in this country fit only for the pasturage of geese, and a small hardy breed of sheep. The value of the feed per acre growing on this kind of land, is not over 25 cents to $2 a year. A few boys with dogs can take care of thousands of these animals at a trifling expense; how absurd, then, to force the owners to fence in this poor land, at such a cost as to make the possession of it an outgo, perhaps, rather than an income to them. Shame on such law, we say, or rather custom, which has become more powerful than the law in many instances and rules to its destruction!

AMERICAN AGRICULTURAL ASSOCIATION.

The regular monthly meeting of this Association was held in the rooms of the Historical Society, at the University, on Monday, the 7th of April. Hon. Luther Bradish, the President, in the Chair. The attendance, as heretofore, was both large and highly respectable. The minutes of the last meeting were read and approved. After which several letters were read, from Hon. Henry Clay, Martin Van Buren, Daniel Webster, and Adam Beatty, acknowledging and accepting their appointments as Counsellors of the Society.

An interesting communication was read from Mr. Harmon, of Monroe county, on his mode of cultivating wheat. The case belonging to the State Agricultural Society, prepared by him, containing a number of varieties of wheat heads, tastefully arranged, was exhibited. Mr. Harmon generously offered to prepare a similar case for the Association, which will be a valuable donation. A communication was also read from Mr. Weller, of Brinklyville, N. C., upon the subject of the Grape Culture. Mr. W. has been highly successful in cultivating some of our native grapes, from which he has made an excellent article of wine He promised to furnish the Association with his mode of making wine, in a future communication. A letter was read by Mr. Butler, from Mr. Van Epps, upon the subject of fossil peat, discovered by him on Long Island, a specimen of which was exhibited.

Mr. R. L. Pell, of Ulster county, presented specimens of the weevil and pea bug, large numbers of which he had collected and preserved alive in bottles. Also specimens of oats; orchard grass; and chess, five feet, six inches high; and clover, three feet, nine inches, the growth of a few weeks, accelerated by a highly concentrated chemical manure. He also presented tomatoes, just in fruit, twenty-four inches high. Peas, in blossom, twenty-one inches; wheat, twenty-one inches; potatoes, with blossom buds, twenty-one inches; all grown by the influence of electricity, since the 12th of March—twenty-five days. Also, a Madeira vine, twenty-four inches high; peas, twelve inches; wheat, ten inches; pepper grass, four inches; grown by the agency of a galvanic battery, since the 20th March—seventeen days; and a cauliflower seven inches in circumference, planted April 1st—six days. Also, grain growing in brick dust, and in cut straw; a large geranium, in ground bones; plants in pure charcoal dust, and one in pure sulphur. He also presented green peas and new potatoes.

Mr. Pell read a paper upon the subject of the effects of electricity upon the growth of plants, in the course of which he referred to the specimens which he exhibited, with the apparatus, &c., attached to each.

Mr. Pell's electrical experiments were made in this simple manner. He took a common flower pot or box, and putting a piece of copper sheet on the bottom, he then filled up with soil, and placed a zinc sheet on top, leaving a hole an inch or two in diameter, for the plant to rise through to the air. A copper wire was soldered to this, connecting it with the copper sheet below, to which it was also soldered.

Mr. Russel read an essay upon the preservation and coloring of growing timber. He exhibited several specimens of white-wood, with which he had succeeded admirably; dying it a variety of colors, by means of a variety of chemical agents. A remarkable change appeared to have taken place also in the wood itself, for it was much heavier after the process.

Dr. Gardner made some excellent remarks from notes, upon the exhaustion of the ground by growing crops.

Mr. Kerr presented a beautiful view and plan of a country-house and buildings, which he explained.

After several resolutions relating to the business of the Society were passed, the meeting adjourned to the 1st Monday in May, when the company retired to the upper rooms of the Society, where refreshments were provided, which seemed to be not the least attractive part of the meeting.

Grinding Bones.—A correspondent in South Carolina writes us, that he had bones broken up to the size of partridge eggs in large mortars made with iron plates in the bottom, and heavy iron pestles. They were then put under fine French burr stones, adapted to grind corn cobs and shuck together. They ground the bones as fine as was necessary, and as fast as meal.

LIEBIG AND THE UNIVERSITY OF GIESSEN.

GIESSEN impresses the approaching traveller pleasantly. It is situated on the Lahn, one of the tributaries of the Rhine, upon basaltic peaks; on either side, are the ruins of castles and towers seven or eight hundred years old. Between them, and upon the Lahn, the cultivation is carried to a high degree of perfection; orchards of fruit trees, and woods of oak, birch and evergreen, beautify the landscape; and, beside the city of Giessen, not less than ten villages are seen, across the valley and about, among the hills. The road enters the "new town," in which the medical college, Liebig's laboratory and residence, and a series of beautiful edifices, more nearly in the massive Tuscan style than any other, are situated. Two low stone edifices mark the entrance to the "city proper," encircling which,—a distance of, I suppose, a mile and a half—is a fine promenade, occupying the site of the old ramparts. This promenade is skirted throughout with trees, and conducts one through a change of scene, looking from Giessen across the valley of the Lahn, that in summer must be especially beautiful. The old town has nothing to commend it to grateful consideration. London is said to have crooked streets, but they are straight lines, compared with the irregular avenues of Giessen; and the buildings along the streets are not parallel with anything, even to the direction of the streets or the structures opposite. The houses, with scarcely an exception, are constructed of wooden frames, filled in with brick, and plastered over within and without; and the bracing of the frame-work is anything but a display of architectural skill. The hotels have passages for carriages through the first story, and are entered, not from the front, but from the carriage-way. The pavements are excruciating, the citizens seeming scarcely to have known the luxury of a sidewalk. Even the pebbles of basalt which are strewn over the street, and ground to powder by the pondrous unwieldy freight-wagons, are swept away in a short time by the scavengers, and preserved for enriching soils.

But I have already too long postponed an account of the sun of this German scientific world—the man who has congregated in his laboratory students from every kingdom of Europe, Great Britain, and from America; who is in organic chemistry, what Newton and Laplace were in astronomy and mathematics—Justus Liebig. My first interview with him was in his private laboratory. The reception seemed to me rather that of a military officer, than that of a scientific man. He was manifestly engrossed with some matters of thought, and while he conducted me through the apartments of his great laboratory, I could not but feel, that working and thinking were the only avocations known here. A gentleman to whom I was introduced, spoke in a subdued tone, as if conversation were contraband. Liebig turns to me and says, "You may converse in English for two or three days, but not more." All this without a smile. I then went to seek my lodgings rather depressed. A few days rolled over, and I was one of an audience of about a hundred chemical students, assembled in the lecture room, awaiting the entrance of the distinguished man. The course on organic chemistry was about to commence. Gentlemen in every variety of costume, with note-books, pens and ink, or pencils, were seated, conversing upon various topics, while before was the assistant just completing his arrangement of the suite of substances and articles of apparatus to be employed in the lecture of the day. The hour of eleven was on the point of striking, the murmur of conversation had subsided into a whisper, when presently the whole audience by one impulse rose, and I saw entering and bowing to the salutation, Professor Liebig. He had just returned from England, where the attention of the most learned, the most wealthy, the most eminent, had been lavished upon him, as they have been shared by no man of science in modern times. The published account of the great dinner at Glasgow had reached Giessen; a welcome with appropriate honors had signalized his return; and now, with all these demonstrations of regard fresh in his recollection and theirs, it was not difficult to see that veneration was mingled with the tide of emotion to which they had spontaneously given expression. In an instant the apartment was breathless, and the lecture commenced. What it was about I was able to see from the formulæ on the black-board, and from a word now and then which I understood; but I was too much absorbed with his manner to give much attention to what he said. He is about an inch and a half less than six feet, and stands quite erect. His figure is slender rather than stout, and cast throughout, originally, in the finest mould. Toil over the table has given a trace of curvature to his shoulders, which is apparent when he stands quietly beside the black-board; but this vanishes in his walk or animated explanation. All his movements, and particularly those connected with demonstration and experimenting, are graceful to a degree I have never seen equalled. To see him in an experimental illustration, holding in the same hand three test tubes, and an equal number of glass stoppers, while with the other he is pouring from vessels containing re-agents, at first a little excited my surprise. The portraits, to some extent, circulated in England and America, presenting him in an overcoat, are caricatures. A lithographic lately published here is better; but no picture can possibly be made of him. There is an expression of thought in all his movements and attitudes which I could scarcely have believed upon the mere relation. Whether with the chalk and black-board, and these he uses in explaining all decompositions and recompositions of any complexity; or, with his index finger along his chin and nose, presenting that most singular of all gestures, or with his apparatus, it is all the same. He is all mind; and it became as distinctly visible through his corporeal tenement, as his chemical compounds are seen through the vessels containing them. The detail of chemical changes is clear, and expressed in language comprehended by all versed in science. Occasionally, these details bring into review some of his own investigations and theories; then a new animation is superadded to his ordinary bearing, and the illustrations are dramatic. His large eyes expand, his features glow, and his gesticulations are such, that I have fancied one might almost understand some of his themes, even if he were unable to hear. His notes consist of a few formulæ written out upon two or three strips of paper. The remark which I have heard made, that Liebig is not an expounder of chemistry, or an operator in chemistry, but is chemistry, seems to be verified. For example, he enters the laboratory, where he is surrounded by gentlemen engaged in a great variety of investigations. There is one upon benzoic acid—there is one upon allantoine—there is one with new compounds of cyanogen—another with quinine—another with cheese—another with a new gum—another with some plants, &c., &c.; and all of them engaged in courses of original investigation—all of them treading untrodden paths; he is ready to tell each one the results for which he may look. Such is his familiarity with every fact in known chemistry, that its analogies are perpetually present, and enable him to promise with great certainty upon almost every investigation. He comes to a gentleman who has a problem in the shape of an unascertained substance. He directs him to bring a dozen or twenty test tubes, and perhaps as many re-agents. The unknown compound is in a few moments distributed among the test tubes and awaiting the re-actions. The professor goes on through the laboratory, repeating similar experiments with other products of investigation; and the next, when he comes round again, if a test tube has been removed from its place, he knows which one, and demands its return. Moreover, the gentlemen who leave unascertained substances of interest when going away for the night, not unfrequently on their return, find that the head of the laboratory has been around, and removed them for safe keeping to his private shelves. This vigilant surveillance—this powerful local memory—this readiness in affording explanation in all difficult matters, have induced the opinion already expressed, that the man is something in chemistry of what Zerah Colman was in calculation. However, Liebig, for the encouragement of all his pupils, has said: "that it is not all so." Every fact in the science has cost him labor to acquire, and labor to retain; and though now he is ready to pronounce upon the nature, properties, and history of every known organic and inorganic body in chemistry, he has acquired this prodigious mass of scientific information only with prodigious labor. Subsequent interviews have apprised me that Professor Liebig is equally capable of making his circle of friends happy, in the exchange of love, in the various departments of science and literature.—*Medical Times.*

Importation of Cheviot Sheep, Shepherd Dogs, and a Chinese Sow.—T. J. Carmichael, Esq., of Sing Sing, N. Y., returned a few weeks since from a tour in England and Scotland, with six ewes and three tups of the white-faced Cheviot breed; four beautiful and well-trained Colly dogs; and a Chinese sow, which he procured in Liverpool, recently imported from China. This stock, accompanied by a Scotch shepherd, is now on the way to Mr. C.'s farm at Lake Mills, Jefferson county, Wiskonsin. The sheep are large and fine, the fleeces quite as heavy, and the wool nearly as long as the Leicester; and having been bred on the bleak mountains of Scotland, they are a hardier race. It was for this reason they were chosen for the Territory of Wiskonsin. The tups were chosen from the flock of Mr. Jas. Oliver, of Bothwick Bray; the ewes from that of Mr. Chas. Scott, of Milsington, Roxboroughshire. The dogs are smooth-haired, very handsome, and sagacious. They are of medium size, and well broke. The bitch had a fine litter of pups by her side, two of which Mr. C. has kindly left for breeding with Dr. Field, of this city. The Chinese sow is far superior to any lately imported here. She is of a black and white color, and about as fine in her points as the improved Chinas we formerly kept on our farm. She has a litter of pretty white pigs, got by a fine white Irish boar, in Liverpool. We shall have more to say of this stock hereafter; in the meanwhile we heartily commend it to the notice of the farmers of the west. Mr. Carmichael deserves great credit for the importation, and it will doubtless have an important and beneficial result on the interests of the country.

Imported Swine for the South.—We neglected to notice at the time, that a lot of very large and fine white hogs passed through this city last October, from the piggery of R. L. Allen, of Buffalo, destined for David Bryan, Esq., of Bellevue, Talbot county, Georgia. They were principally of the stock imported by us in 1841, called Kenilworth, and the largest and finest white breed to be found in England. Two sows of this lot were judged to weigh over 500 lbs., in good breeding condition, and may be fatted to weigh 700 lbs. The yearling boar was large and fine, and would weigh about 400 lbs. There were some younger ones in the lot quite as promising. These animals were ordered by Mr. Bryan for the purpose of meeting the taste of those planters who wish more size than is generally found in the other good breeds. We are confident they will be satisfied in this respect, and get their pork with a reasonable amount of feed, which is seldom the case with overgrown animals. We are glad to notice these improvements going forward at the south. We can confidently recommend the importation of Mr. Bryan to his neighbors in Georgia. There is a very large white boar of a similar breed, recently imported from England, and now in this vicinity. He can be had for $50. He would be a treasure to any one in want of such an animal.

Cotton Seed Oil Mill.—We are anxious to know something of the machinery necessary to constitute a cotton seed oil mill, the cost of it, the amount of labor required to produce a given quantity of oil; also the quantity of oil which may be expected, on an average, per 1,000 lbs. of seed. Will any of our southern friends oblige us by a reply, and send us a drawing of said machine for engraving, together with a complete description of the same?

Mr. Taintor in Europe.—John A. Taintor, Esq., of Hartford, Conn., sailed for Europe in the Queen of the West on the 21st ult., expecting to be absent two years. During this time he will make a pretty general tour. One especial object with him will be to visit Spain, to examine the Merino flocks, and personally study the sheep husbandry of that country. We know of no one better qualified for this object than Mr. T.; and we shall look to him for more reliable information on this subject, as well as the Saxony sheep of Germany, and the Rambouillets of France, than from any other gentleman of our acquaintance. We wish Mr. Taintor and his family a pleasant time of it abroad.

Mr. Prentice's Extensive Sale of Short-Horn Cattle.—This will positively take place on the 25th of this month, at Albany.

SCHOOLEY'S MOUNTAIN FARMING.

Permit me, Mr. Editor, the use of a column or so, to state the case of our neighbors on the other side of the separating line between the fertile hills and vales of Warren, and the exhausted, sterile fields of Morris County. They have often excited the pity of some and the ridicule of others, favored with a better soil, or more energy and ambition to develope their resources. By the way, perhaps it would be well for some of these sympathizers and scorners, to see to it that they are not pursuing the same ruinous system with the objects of their commiseration; and that the evil day is only deferred in their case, because the soils they cultivate possess greater powers of endurance.

If you will take the map of New Jersey, commence at the New York line, and pass along the western boundary of Morris and Hunterdon counties to the Delaware river, you pass over what is termed by our State Geologist a continuation of the New York highlands. It is characterized by him as the most perfectly developed *gneiss* formation in the State, and contains those mineral resources upon which are based the most prominent manufacturing interests of New Jersey. It is geographically known as the Wallkill, Schooley's, and Musconetcong mountains; being one continuous ridge, under three names. It is the middle, or Schooley's mountain district, of which I now more particularly speak, stretching along south-west of the Morris canal to the line of Hunterdon county.

The sides of this mountain are rugged and steep, not tillable, and mostly covered with wood. The summit is elevated several hundred feet above the adjacent valleys; varies in width from two to five miles; is mostly smooth and clear of stones, and answers the description of what has elsewhere been denominated *table land*. The growth of timber is good, and would indicate a soil capable of cultivation, both profitable and agreeable. Portions of the soil are clay, inclined to heaviness; but most of it is of a gravelly or siliceous character. Settlers were, no doubt, attracted thither at the earliest settlement of the State, by its supposed mineral wealth, which seemed to constitute its chief value with the proprietors; for while they sold the lands for a song, a special reservation was made of all mines discovered thereon. This may account for the wretched condition in which we now find it. The soil being considered of only secondary importance, did not receive the proper attention; and thus the habits resulting from this under estimate were formed and perpetuated down to the present day. The agricultural interest seems thus to suffer in all regions where mineral wealth abounds. It has been overridden here, not so much by mining, as by the conversion of the forests into coal for the use of the forges. With two or three exceptions, these have now gone down for want of fuel; but instead of turning to, and depending upon the soil, many of the inhabitants keep up a miserable continuation of the habits in which they were reared—farming some, and carrying charcoal to the city—which, since the Pennsylvania coal beds were made accessible, is almost equal to "carrying coals to New Castle." A four horse team and hand will be gone to New York a week, that he may bring back a paltry return of some $20, out of which must be paid the woodchopper and collier.

The region now presents all the features of a worn out country—old fields—sickly crops—fences out of repair—buildings ditto—and all the other usual moral and physical accompaniments. The soil has become the by-word for barrenness, all the country round, and its occupants a standing reference, when an illustration of the *complete rustic* is needed, in spite of the example of those cultivated New Yorkers and Philadelphians, whose annual visit to the Springs, and consequent rambles after fish, game, and pleasure, around their beautiful lake, upon the mountain summit, and among their fields and forests, by which they are brought in contact with them, one might suppose would induce a better state of things. The old adage, that "example is better than precept," does not seem to hold good in the matter of manners, neither in city nor country.

The people here are very economical in the amount of labor bestowed upon the soil, and would not appear to look for remuneration, so grudgingly is it bestowed, and so slovenly, ill-directed, and misapplied are their exertions. Their shallow and inefficient plowing betrays a fear lest some portion of the subsoil might be disturbed; which a friend just now facetiously observed, had got so close to the surface, that it bids fair to crowd the tillers themselves off the land altogether. The crops can hardly be estimated; and, in some cases, I am not quite sure there are any. As good as I remember seeing the past season, was one of daisy, most luxuriant, self-made, and suffering no interference on the part of the owner. Wheat is seldom sown, for fear the seed might not be forthcoming at the harvest. Rye scarcely yields 10 bushels per acre, and is their only reliance for a winter crop. This unusually favorable season has given better yields of corn than common; but generally this crop shows their unthrifty culture more than any other grain. Twenty bushels is the maximum, and this is seldom attained. Oats is their standing crop, in connection with buckwheat. One early, and one late—seed cheap—plow and sow—no after-culture—and reap. They have what they get, and no expense to pay. Such crops just suit such people. A clover field to afford hay, is a scarce thing, and the meadows yield but a short supply. You will see them in early spring coming over into our county, with teams that show the necessity of the case, after a load of hay or straw, wherewith to sustain their starving stock till the grass season, upon which they are compelled to turn at the earliest day, and thus keep down both stock and pasture.

Now, why is it these things are so? It should not be. The soil is naturally better than one half of that now cultivated in the United States. Corn, rye, and oats can be profitably grown; while for grass crops and grazing it is well adapted. Lime can be had in the valleys on both sides of the mountain, and there are also other means of restoration at hand, were there energy, enterprise, and capital sufficient to apply them. Neither do they lack in facilities for market, having two at their doors, one at the hotels during the boarding season, and another among the forges, colliers, &c., amidst, and a few miles above them. Their access to the city is both quick and easy. A drive of two hours will place them on the bank of the canal, or an early morning start bring them to the Morris railroad, and thus to the city the same day, in season to dispose of their produce.

The difficulty, then, is among themselves. They do not trust to the soil, but look to something else. One of the most prominent of these reliances is the coaling of the wood yet left, for the city market. When this is gone, they must raise the soil, or a portion of them leave it.

Now, Mr. Editor, what can be done in such a place? Call on these men to improve, and they show you empty pockets. Suggest schemes of improvement, and you will be told, "these things cost money, and we hav'n't got it." They must then have some plan of "*going ahead*" that does not cost anything but labor. Did you ever see anybody raise such a piece of land, with nothing but his hands? And if so, give us the manner, and the results. Schemes that require a capital equal to the value of the farm after the thing is done, will not answer. They have been told they might accomplish the desired object by means of the bean culture, and from what little I have seen of it elsewhere, there can be little or no doubt of it. If they would only follow out the suggestions of your article in the third volume of the Agriculturist, upon this subject, they would find themselves started in a new track, with brighter prospects. Chip manure is mentioned as being especially adapted to this crop. Now, on almost any of these farms, enough of this and the like manure could be found for three acres, which would produce a crop worth more than $100, at present prices—an humble beginning, it is true; but could be doubled from year to year, till a flock of sheep could be purchased, and their progress upward would be still more rapid; and I can see nothing to prevent this becoming a wool-growing region, not surpassed by even Vermont itself. Another plan has been tried, which certainly did succeed in one case. Poor land was taken and oats cropped upon it for nine successive years—no stock was allowed to go upon it, but the weeds and second growth fell down—till the tenth year, when a good wheat crop was obtained. But there is much prejudice against this scheme, from the almost universal belief that successive crops of oats poison the land by certain excretions from the roots.

My paper is full, and I must have done. I would not have you believe there are no exceptions among the farmers of Schooley's mountain to these remarks; for there are several, and very commendable ones, considering the circumstances in which they are placed. A. R. D.

Hackettstown, Warren Co., N. J.,
Dec. 12th, 1844.

We passed over the above region in our rambles last summer, and determined at the time to write an article upon the subject; but our excellent correspondent has saved us the necessity of so doing. His suggestions as to the renovation of the soil are excellent. It is one of the finest sheep countries in the north, and in its amenity of climate superior to Vermont; and raising mutton for the New York market would pay extremely well, and, moreover, rapidly renovate the land. Pasturing geese there in large flocks would also be an excellent renovation, and turn poor land to a good account. This is a system little understood in this country, but extensively and profitably practised in England on poor lands. Then let clover and other crops follow; which, with plaster, lime, ashes, charcoal, swamp muck (which we saw in abundance there), and the other manures at hand, would make splendid stock farms of the whole of that beautiful region—for beautiful it really is, naturally. Our first volumes abound with all sorts of information on these subjects, and we can only recommend an attentive perusal of them to those who are desirous of understanding the proper manner of cultivating any kind of soil to be found in the United States.

CULTURE OF TRUFFLES.

TRUFFLES have been the favorite dish of epicures from the beginning of the world to the present day; and yet, strange to say, they are always scarce and high priced, for few know how to raise them, and still fewer have the proper knowledge to prepare them for the table. The royal cooks of France say, that "the truffle improves all it touches;" and happy is the *cuisinier* who can give a taste of its delicacy and flavor to each separate dish which issues from his scientific laboratory! Even the grave and satirical Juvenal writes:

. . . "*Tibi habe frumentum, Alledius inquit;*
O Libye! Disjunge boves, dum tubera mittis."

This we take the liberty of thus freely translating. not doubting that it is the veritable English the gastronomical satirist would have used in our day.

Keep back thy wheat, oh, Egypt! and thy corn,
And thy fat beeves which low at early morn;
But give me truffles, or I die forlorn!

A gay French writer says: "*Quand je mange des truffes je me crois transporté dans un autre monde,*" &c.; but we forget—this is not English, and therefore we translate the lively Gaul for the benefit of our readers, as freely as we have the grave old Roman.

. "When I eat truffles I at once think myself transported to another world; for instantly my spirit becomes more gay and more joyous; my blood courses my veins with an indescribable pleasure; an agreeable voluptuousness seizes upon me, and my whole spirit is changed by the delicious symposium. As I continue eating my judgment becomes sound and discreet: my wit sharp and ready; and my imaginings of the most lofty, varied, and beautiful kind. Indeed, a sort of inspiration comes over me, and I feel as if I could readily write an epic poem; address a popular assembly with unsurpassed eloquence; and compose works which for depth of learning, and beauty and brilliancy of style, should astonish the world. Then the agreeable digestion which follows—the delicious sleep—and the ecstatic dreams! Ah, language is too poor to portray these; and all, yea all, are inspired by truffles!"

Truffles or Mushrooms are easily cultivated, and the best method of raising them which we have seen practised in the United States, is detailed in the following obliging communication to us from Mr. Colt, of Paterson:

"You ask me about the cultivation of mushrooms. I have two houses in which I have raised them, one built expressly for the purpose, 50 feet long, 14 wide, 9 high, plastered inside, with a flue from a stove running on the ground through the centre. On the top of the flue are hollow tiles for the purpose of holding water and keeping the room moist. I have two tiers of beds on each side of the house, one over the other, 3 feet apart and 5 feet wide. We first fill each bed with pure horse dung, with as little straw as possible—say one foot deep; we then put on 3 inches of rich black mould; in this earth we plant the spawn of the mushroom broadcast. That from England comes in blocks like brick. This is broken up into pieces the size of a walnut, and planted about 3 or 4 inches apart. The best time to make the beds is in October and November. Keep the house warm; about 65 degrees, and damp and dark, and cover the beds with hay 3 inches deep. The mushrooms will be ready to pick in about a month, and will continue until August, or longer; but in very warm weather they get covered with bugs. The other house is smaller, and I heat it with a large pile of horse manure, which being kept wet my gardener thinks raises the best mushrooms."

ROSWELL L. COLT.

Paterson, 7th May, 1845.

INEXHAUSTIBLE SUPPLY OF GUANO.

MANY of our farmers have been deterred from making use of guano, from an apprehension that the supply might fail, and that so powerful a stimulus would injure the soil, unless the same substance could be annually applied. Erroneous as this last notion is, it will perhaps be more or less entertained, until repeated experiments shall have shown in this country, as in others, that its tendency is permanently invigorating.

The fear that there will not be found an ample supply on the coast of Peru *alone*, for the wants of Europe and the United States, will cease with those who can give credit to an official report made to the Peruvian government in 1842, and published at Lima, under the authority of the Treasury department (*Ministerio de Hacienda*). This report gives the result of a survey made by order of the Peruvian government, of the three islets near Pisco, in latitude about 14° south, called the CHINCHAS, where is found *one* of the *many* deposits of guano, which abound on the coast of Peru and Bolivia, to an extent of 800 miles. The surveyor, after some remarks upon the origin and nature of guano, states, that, from admeasurement, he found the superficial extent of the deposits on these three islets to be 1,554,406 square varas (the vara is computed at 33⅓ inches, English); and the depth to vary according to the irregular surface of the rock upon which it is based; but making liberal allowance for the points of rock rising above the bed of the general mass, he calculates an *average depth* of 60 varas, which gives the sum total of 93,264,360 cubic varas. The report adds, "the cubic vara of guano as found in these deposits weighs more than half a ton; but taking no account of the excess, we have here 46,632,180 TONS, which if extracted at the rate of 50,000 tons per annum, would last more than 900 years; and valued at $50 per ton, amounts to $2,331,609,000, a sum such as no mine has as yet produced."

Making every reasonable allowance for errors of survey, and over estimate of depth, I think here is abundant evidence that Peru, from these islets alone, can supply the world with guano for many generations.

EDWIN BARTLETT.

New York, May 12, 1845.

June is the most growing time for weeds; keep them down well this month.

HISTORICAL NOTICE OF THE ISABELLA GRAPE-VINE.

THE Isabella Grape-vine, so celebrated throughout the United States, for its hardiness, vigor of growth, and abundant yield of fruit, it is highly probable, is a hybrid produced by cross fecundation between the vine of Europe and one of our native species. Concerning its origin and history, I am indebted principally to General Joseph Swift, U. S. A., of Geneva, New York, for the following account, which I trust will be no less acceptable in coming from so respectable a source, than in the interest elicited in so valuable a production.

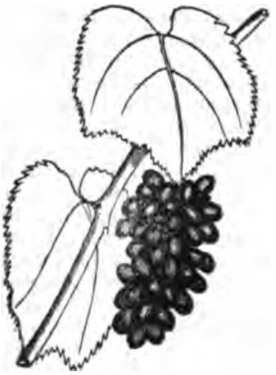


FIG. 51.

It appears that General Smith, of Smithville, North Carolina, in 1808, procured from Dorchester, South Carolina, several roots and cuttings of a hybrid vine, which, it is said, had been originated there by some families of Huguenots, between the Burgundy grape-vine from France, and the native fox grape (*vitis labrusca*) of that vicinity. In the year 1817, a vine produced from these cuttings, was transplanted from Smithville, by Mrs. Isabella Gibbs, in honor of whom this variety was named, to the garden then owned by her husband, Colonel George Gibbs, which was situate along the southerly side of Cranberry, between Willow and Columbia streets, in Brooklyn, New York. In 1819, the garden was purchased by General Swift, who very generously distributed roots and cuttings of this vine among his neighbors and others, more especially to the late William Prince, of Flushing, Long Island, by whose efforts it became widely disseminated throughout the Union, and was sent to several countries in Europe, Madeira, &c. The garden has since been divided into lots, and partially occupied by buildings, and the original Isabella vine, after attaining a circumference of more than a foot, was severed to the ground, about the year 1837, in order to make room for the improvements going on at that time. Portions of the parent stock, however, are still growing in great perfection, and annually produce an abundance of fruit. Mr. A. G. Thompson, their present owner, informs me that, in grading the lots on which they stand, it became necessary to raise the surface some two or three feet, and that the original roots are still supposed to remain at that depth in the earth, a conclusive proof of the advantages derived from deep planting in a free and open soil.

D'JAY BROWNE.

New York, May 20, 1845.

Agriculture in Scotland.—No. 8.

Guano and other Manures.—I have never been so fully impressed with the truth of the maxim, that "a demand creates a supply," as in this country during the last twelve months. What was first an opinion, has now become a settled conviction, of the efficacy of guano, nitrate of soda, phosphate of lime, and kindred manures. With this conviction has increased the demand; scarcely any farmer is content without something beside that which he is able to make on his own farm. Of Guano, alone, it is estimated that not less than 200,000 tons will be applied to the soil of this country during the coming season, at an expense of some £1,500,000. There is not a desolate island on the African or South American coast, that will not be visited in quest of this substance, so lately unvalued, and almost unknown.

But while some search foreign lands, others are seeking out long neglected sources of wealth at home. Almost every week brings to this laboratory for analysis, some new varieties of manures. Substances which have been thrown into the nearest stream, or suffered to accumulate in unsightly heaps, are now carefully preserved, their value determined by chemical investigation, and their application eagerly commenced. There is indeed now some danger that the farmers may be deceived and seriously injured by implicitly trusting to the highly colored announcements which meet them at every turn; and not the least benefit of this Chemical Association to the people of Scotland, is, the protection which it has afforded them from imposition; while, on the other hand, it has shown what was really valuable.

Sugar-House Refuse.—A detailed account of the various substances analyzed here with a view of determining their value as manures, would form a most interesting and instructive volume. The refuse of almost every kind of manufactory is now carefully collected, and many of them are of much importance. I have lately examined the refuse of a sugar manufactory in Leith, brought here by a gentleman who supposed that it might be worth saving. According to my analysis its composition was as follows:

Water, - - - - - -	46.5
Blood and Saccharine matter -	35.11
Phosphate of Lime, - - -	11.99
Carbonate of Lime, - - -	1.73
Sulphate of Lime, - - -	1.13
Common Salt, - - - -	0.35
Clay and Sand, - - - -	3.16
	99.97

If we consider that blood is one of the most powerful manures known, and that the phosphates are quite indispensable to the growth of our crops, we find that this is a most valuable manure. As it comes from the manufactory, it contains 46.5 pr. ct., or nearly one-half of water; but were it dry, the blood, &c., would amount to 65.62, and the phosphates to 22.61. It would be then scarcely inferior to Guano. Though hitherto little thought of in this country, its worth has been long known in France as a manure for the vines. On the Loire, and in several Departments in the west, it is used largely. About 10,000 tons are annually imported into France; it is sold at 3 francs and upwards per bushel.

I do not know whether this refuse is employed as a manure in the United States; if not, I hope that this may prevent any farther waste of so valuable a substance. (*a*) It may be well to state, that evil effects have sometimes followed its application in a fresh state, owing, no doubt, to some of the organic acids from the sugar. This danger may be obviated by allowing it to remain over one season, or by making it into compost.

Treacle.—In connection with the same subject I analyzed the ash left after evaporating and burning a quantity of inferior sugar house molasses, called here "treacle." The per centage of ash was 2.89. Below I give its composition, and the quantity of each ingredient in the molasses itself.

Composition of Ash.				Quantities in Molasses.	
Gypsum (Sul. of Lime)	5. 37	p. ct.	equal'g in molasses	0. 15	p. ct.
Com. salt & Car. of Soda	71. 44	"	"	2. 06	..
Phosphate of Lime	4. 61	"	"	0. 14	..
Lime	4. 92	"	"	0. 15	..
Magnesia	0. 04	"	"	0. 26	..
Siliceous matter and clay	3. 22	"	"	0. 09	..
	98. 60			2. 85	

We see, then, that each 100 lbs. of molasses carries off between two and three lbs. of inorganic constituents from the soil. In a series of years this loss, unless repaired, would make itself visible.

Cane Ashes—But there is a far more serious fault than this, which I fear many of our Southern brethren have committed in the waste of the ash of their canes. For their benefit I will annex the analyses of two cane ashes by Mr. Fromberg, first assistant in this Laboratory.

	Ash from Jamaica.		From Tobago.	
Potash, - - - - - -	0 83	p. ct.	1.25	p ct.
Soda, - - - - - -	0.73	"	1.34	"
Magnesia, - - - - -	0.18	"	0.88	"
Sulphuric Acid, - - - -	0.31	"	1.14	"
Phosphoric Acid, - - - -	8.17	"	1.56	"
Carbonic Acid, - - - -	2.24	"	8.02	"
Chlorine, - - - - -	0.06	"	1.26	"
Lime, in state of Sulphate, -	0 12	"	1.02	"
——— Carbonate, -	1.34	"	8.10	"
——— Phosphate, -	4.54	"	1.97	"
Alumina, - - - - -	3.63	"	1.38	"
Protoxide of Iron, - - -	0.68	"	3.75	"
——— Manganese, - -	0.62	"	0.37	"
Silica, with some Silicate of Alumina, - - - - -	75 81	"	65.95	"
	99.26		97.99	

This letter has already extended to such a length that I will add little respecting the above. I am sure that no intelligent planter who sees it will ever again throw away his cane-ash, but will carefully return it to the soil to serve as the framework of future plants. The subject has awakened much attention among the West India planters, and they now preserve not only the ash, but every product of the sugar making that was formerly wasted.

JOHN P. NORTON.

Edinburgh, April 1, 1845.

(*a*) It is highly valued in this city, and Mr. Woolsey for one, has made several interesting experiments with it on his farm at Hellegat-Neck. It was found superior to poudrette on corn and other products, and it imparts a deliciousness of flavor to the different kinds of fruits; it is consequently one of the very best kinds of manure for them, and it should be carefully husbanded and used for this purpose.

BONE MANURE.

The *three* first essentials of oratory, as defined by Demosthenes, were action—action—action. With no greater limitation to his definition than was designed by this celebrated master, we may say, that the first requisite for successful farming is manure; the second is *manure;* the third is *manure.* With these existing naturally in soils, or artificially supplied, everything can be done; without them, nothing. The importance of the subject is my apology for the frequent and urgent calls upon the readers of the Agriculturist for providing this essential groundwork of the farmer. I shall confine myself in the present article almost exclusively to illustrating the effects of the application of bones to poor, clay, pasture lands, as they are detailed in England, and especially in a recent article on the subject, in the Journal of the Royal Agricultural Society, by William Palin.

He says, "Perhaps there is no county in England where the pasture lands, particularly the poorer soils, have been so much improved during the last twelve years, as in Cheshire (the best dairy county of the kingdom); and this principally by the application of bone dust. This extraordinary manure has a peculiar effect upon the poor clay land pastures; for on the application of boiled bones, a sudden change takes place in the appearance of the fields, and instead of the carnation-leaved or pink grass, which so much abounds in this kind of land, luxuriant herbage presents itself, consisting of red and white clover, trefoil, and other grasses, of which the cattle are so fond that they eat up almost everything before them; even rushes and thistles are very much weakened, and eventually reduced, by being constantly eaten off by the stock, after the pastures have been bone-dusted."

Again, through a correspondent, he says, "In the winter of 1836, I laid upon a field of 11 acres one ton of boiled bones, crushed small, to the statute acre; the field had not been plowed for a great many years, and produced a coarse, bad grass, which I could only get eaten down during the winter or spring. In 1837 I sowed the field, and had a very good crop, with much red and white clover. In 1838 I had a most extraordinary crop; and perhaps the most extraordinary thing was, that it was an entire mass of wild red clover. I never saw a field of common clover a fuller crop. I continued to mow it for three years longer, and had fair crops, but not very heavy ones. The field was not then under-drained."

Another correspondent says, "I have known many instances where an outlay of £7 or £8 ($35 to $40) per acre for bones had been made, the annual value had been increased 300 per cent.; and although a considerable proportion of the clover and trefoil may disappear after 8 or 10 years, yet an excellent herbage of permanent grasses remains, very superior to what the land originally produced; and, in my opinion, clay land once well boned will never again produce a bad herbage, if kept in pasture. I have known many instances where lands which had been boned upwards of 15 years still retained a considerable proportion of trefoil and clover. Before bones were introduced into the county, farmers made a point of selecting a hardy and inferior description of stock for their clay lands, observing that large well-bred cows did not at all answer on them; but they now find that the best of stock obtain ample support, not only to supply the cheese tub, but also to do justice to their lineage, by retaining, if not improving, their size and symmetry. I have paid nearly £10,000 (near $50,000) for this manure, and the result has in every instance been most satisfactory. I have known many a poor, honest, but half broken-hearted man, raised from poverty to comparative independence; and many a sinking family saved from inevitable ruin, by the help of this wonderful manure. Unquestionably bones act in a very peculiar manner on our Cheshire clay soils, when applied to grass lands, which no doubt arises from the circumstance of our soil containing either less of that matter which counteracts their effects, or possessing in an extraordinary degree those qualities which are favorable, if not essential to their operation." The *rationale* of all this is, that the soil is deficient in the materials afforded by bones, which are all of the first importance for making the greatest quantity and best quality of grass.

A Lancashire agriculturist writes, "Cheshire, it is well known, is a great cheese-making county, and within the last 20 years a vast extent of its pastures have undergone an almost inconceivable amelioration from the application of bone manure. In the year 1838 I inspected a farm of tenacious soil, on which £250 (upwards of $1200) had been expended in bones for the pasture land. At that time, in August, though no stock had been on them during the summer, the herbage on several fields was so scanty, that 20 stones of hay (280 lbs.) could hardly be got from them. The bones used were boiled, that is, stewed in a digester at a high heat for 30 or 40 hours, in which process a large proportion of the gelatinous and oily matters are extracted. The land had been from time immemorial extremely poor. The stock of cows was only seven for a farm of 98 acres. In 1842 the cow stock had been increased to 24, and in the autumn of that year there was a great excess of feed, so that additional stock had to be added to consume it." It may be added, that in this case, as in most of the details of farm management given to the public, there is a lack of *precision in details*, and specific, accurate increase noted, which leaves *the exact amount of improvement* entirely to the conjecture of the reader. We must conclude, in the experiment above given, that only a small part of the above 98 acres was appropriated to the stock.

Mr. Stietch, an excellent farmer, estimates from his own experience, that a first application of one ton of bone manure to an acre of pasture land, will, in many cases, make it of three times its value for productiveness. An extensive observer says he never heard of a single failure of bone dust in that part of the county. On sterile clays, ill covered even with the least nutrition of vegetation, bone manure soon effects a decided change. The hypnum tribes, or mosses, and the *cavex panicea*, or pink grass, soon disappear, and a fine rich sward of the noblest grasses to be seen on the best grass lands takes their place. A piece of land, which, previous to being bone-dusted, scarcely grew any other plant than the cavex, is now a beautiful pasture of *trifolium pratense*, or perennial red clover; cow grass, or *trifolium medium*, perennial; trefoil or *trefolium procambus*.

On many farms, bones do not so much increase the *quantity* as the *quality* of the food grown; and a greater quantity of cheese is frequently produced from a given quantity of land, rather than an increased weight of grass.

Another occupant says, his stock was scarcely ever seen feeding on any other than the boned land, and it was still so full of feed, that it might be mown to advantage, producing principally cow grass or marl clover, white clover, and perennial trefoil; at the same time the part of the field where the stock would not feed was both bare and thin. Instances occur where bone has been applied on wet land, which had remained undecomposed, and without producing any perceptible effect for many years, when the land had been drained for some months, the coarse herbage began to disappear, and it was soon covered with the finest description of permanent, valuable grasses. The value of bones for most tillage crops, turnips, wheat, &c., is too well known to be here repeated. The above examples will suffice to show the immense advantage clay pastures or grass lands derive from bones.

Much, and it appears to me very stupid controversy, has existed, even among scientific men, as to the comparative value of boiled and raw bones. An analysis of each shows conclusively that the raw are much the more valuable. The analysis of Fourcroy and Vauquelin gives to ox bones, of

Decomposed animal matter, ...	51.0	
Phosphate of lime, ...	37.7	
Carbonate of lime, ...	10.0	
Phosphate of magnesia, ...	1.3	
	——	100.

The analysis of M. Guillott gives, for

Calf bones,	54.0	phos. lime,	.0	carb. lime.
Horse do.	67.5	" "	1.25	" "
Sheep do.	70.0	" "	.5	" "

Yet, notwithstanding the great additional proportion of phosphate of lime, which has been maintained to be the sole fertilizing principle, by many distinguished scientific men, the experience of practical intelligent farmers assigns much the most value to the ox bones, which contain the lesser quantity of the phosphate. It follows conclusively, that the *decomposable animal matter* extracted by digestion or calcination, gives to them the increased value over other bones. The extractive matter, oil and gelatine, principally, is of much value in the arts, and is generally worth much more for this purpose than for the uses of agriculture; and where this is well understood, boiled bones sell for about one-third less than the raw; the former selling now for £3 10*s*. to £3 15*s*., while the latter are worth £5. The increased value of the raw is further shown by the high price of bone saw-dust, furnished by the bone manufacturers, which, in consequence of its extreme division, gives out all its fertilizing matter immediately to the soil. This sells generally at £8.

The quantity usually put on an acre is 15 to 25 cwt.; though 8 cwt. has produced in some instances surprising effects.

Now, we ought to look with certainty for a profitable application of the above unquestionable facts, by American farmers. We have in this country somewhere, the accumulation of bones produced here for nearly two centuries, and a large addition may be looked for annually hereafter, all of which may be had for the cost of collecting; and surely there are worn-out lands enough in the older States, which require, and would make a grateful return for their application. R. L. ALLEN.

Buffalo, Feb. 19, 1845.

AURORA AGRICULTURAL INSTITUTE,

AT AURORA, CAYUGA CO., N. Y.

THE late Judge Buel, in one of his public addresses, in speaking of Agricultural Schools, says:—"I pretend not to the spirit of prophecy, yet I venture to predict, that many who now hear me will live to see professional Schools of Agriculture established in our land; to see their utility extolled, and to be induced to consider them the best nurseries for republican virtues, and the surest guaranty for the perpetuity of our liberties. They should be established—they will be established—and the sooner they are established the better for our country."

The undersigned, being satisfied of the great public utility of such institutions, and feeling an ardent desire for their early introduction into our State, have, in order to meet what now seems to be a decided public sentiment in their favor, and call for their establishment, resolved to open such a school, and have already made arrangements therefor.

The Farm upon which the Institute is located, is situated in and directly adjoining the beautiful village of AURORA, on the east bank of Cayuga Lake, in Cayuga county, 16 miles from Auburn, and 12 miles from Cayuga Bridge and the Auburn and Rochester Railroad. The communication is direct with Auburn by stage, and with the railroad by steamboat, in summer. The farm contains 212 acres, in a good state of cultivation. The soil is various; fruit abundant; buildings are good—part nearly new—and very pleasantly situated. The location is considered one of the most desirable of the many beautiful situations on the borders of the lake, commanding an extensive and varied prospect of its waters and the surrounding country, and altogether admirably adapted to the end in view.

It is the intention of the undersigned that this institution shall afford every facility for young men to make themselves thoroughly acquainted with the principles of Agricultural Science, and their judicious application to practical husbandry; and particularly to afford young men from our large towns the most favorable opportunity for preparing themselves for agricultural pursuits. It is also their purpose to some extent to test, by actual experiment, the correctness of principles in agriculture now received, but not yet well established, and report the same to the public.

The young men will be received into the family of the principal, and be kept under his immediate and constant supervision. Particular regard will be had for their moral culture; and a strict observance of all rules and regulations required.

Terms—$150 a-year, payable quarterly in advance. No pupils under fourteen years of age will be received. Application for admission may be made to the principal, from whom any further information may, on request, be obtained.

CHARLES C. YOUNG, A.M.,
Proprietor and Principal.

For further particulars regarding the above institute, see advertisement. We shall take pleasure in answering any inquiries which may be addressed us upon the subject. We are personally acquainted with Mr. Young, and can recommend his school to the attention of our friends. Such a thing has been long wanted in this State, and we trust he may meet with that encouragement in its establishment which the paramount interest of the subject demands. His associates in the conduct of the institute, Messrs. Thomas and Thompson, are among our most reputable citizens, and are peculiarly qualified for their stations. No man now living in this State is so well and favorably known in the ranks of agriculture as our estimable and venerable friend, David Thomas, the Visitor and Adviser of the Institute.

FARMING IN ALABAMA.

We have the pleasure to inform our brother farmers in the different sections of our wide-spread country, that in this State, as well as in the south and southwest generally, there has been for some months past a general movement by the cultivators of the soil in favor of an improved state of husbandry. This is manifest from the late agricultural conventions held in Montgomery, Mobile, and Tuscaloosa, in Alabama, and the one recently held in Milledgeville. in the State of Georgia. These meetings must result in much good to the agricultural interests of the country. We need not expect sudden changes. Indeed, it would not be best for the cause of agriculture; but that there is a much greater spirit manifested throughout the southern States at the present, in the improvement of husbandry, than has before existed, cannot be doubted by the most casual observer. So far as it respects our immediate section of country, I have forwarded you the Southern Shield, which gives the published accounts of the meetings of the Barbour County Agricultural Society, and I will take this opportunity to observe, that, as a farmer, I feel under much obligation to the political press, for the interest that appears to be taken by them in the cause of agriculture recently.

I have been much interested by the communications which have appeared from time to time in the American Agriculturist from my brother farmers in different sections of our wide spread country. Your periodical appears to be what its name would indicate, completely an American publication, as I have found in its pages correspondents from Maine to Louisiana. This, being the case, I will give you some small account of the farming operations of 1845, so far as my own farm is concerned; and we must first say that this is a new section of country, a large part of the farms in Barbour County have not produced more than ten crops, and many of them not more than five; secondly, that ours is what may be termed with propriety the cotton growing region, and on most of the large farms on the Chatahoochee river, there is much more than half the land planted in cotton.

My farm has 250 acres of cleared land. It is mostly sandy land, or what is termed pine land. We commenced in the woods, and have made six crops on it, and have now planted the seventh. We sowed last November 60 acres with the common black oats, which have stood the winter well, and will soon be headed out. The business of 1844 was wound up with the year. The month of January was a fine month for business with us, there having been but little rain and but little cold weather. That month was principally taken up in hauling out compost manure, rolling and burning logs, and knocking down cotton stocks. We hauled out 475 cart-loads of 15 bushels to the load, making 7,125 bushels. This manure is a compost of the blue marl and pine straw, of about equal parts of each, with the treading of cattle. We commenced last July to haul in the straw, and hauled in the marl in October. The cattle being about 40 in number, are penned every night the year round. The manure we put on our land in the drill. About half the plantation which is cultivated, is broken on the horizontal plan, and is planted in corn on the drill system; the rows are 6 feet apart, and the stocks 2½ feet apart in the drill. We have 100 acres in corn, 80 in cotton, 60 in oats, 3 in potatoes, and 3 in rice. The whole is now planted, and we are at this time plowing and hoeing out the corn, and putting it to a stand. We intend, should we be spared the next year, to add the sugar cane to our provision crop. We had green peas on the 25th of March, and in our climate we have vegetables the year round of some kind. Thus, my dear sir, I have attempted to throw together a rough sketch of our farming operations away down south. Should you deem them worthy a place in your paper, you are at liberty to use them as you think best. I have some hope (should nothing take place to prevent) of visiting your city the coming summer, and making an agricultural tour through your section of country.

Alexander McDonald.

Eufaula, Barbour Co., Ala., April 6, 1845.

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We shall be highly pleased to see our respected correspondent in New York, and hope he will make it convenient to attend the State Society show at Utica when he comes on. We observe that Mr. North, senior editor of the South Western Farmer, intends to be there, as well as many other southern gentlemen. We are heartily glad of this, and do assure them that there are few things in the United States better calculated to instruct and interest them as farmers and planters, than the annual shows of the New York State Agricultural Society.

Raising Wheat in New Jersey.—I will suggest the inquiry whether the culture of wheat might not be improved in this and adjoining counties, where the soil is somewhat wet and clayey, by adopting the Canadian mode of summer tilling; plowing light the first time, and the second time running the plow one or two inches below the first, and laying the land off into narrow beds or lands—plowing up and down instead of sideways of any elevation in the ground, and taking care to keep open the furrow between the lands, that the water in fall and spring may be carried off and not left to stand upon and kill the wheat. This is almost the universal practice in Upper Canada, upon moist clay lands, with a thin soil above the clay, where the farms are more noted for good wheat than in any other part of the province. Their new lands produce better and more wheat after a few plowings, and several crops have been taken off The first crops the straw has too rank a growth.

Essex Co., N. J. E. P.

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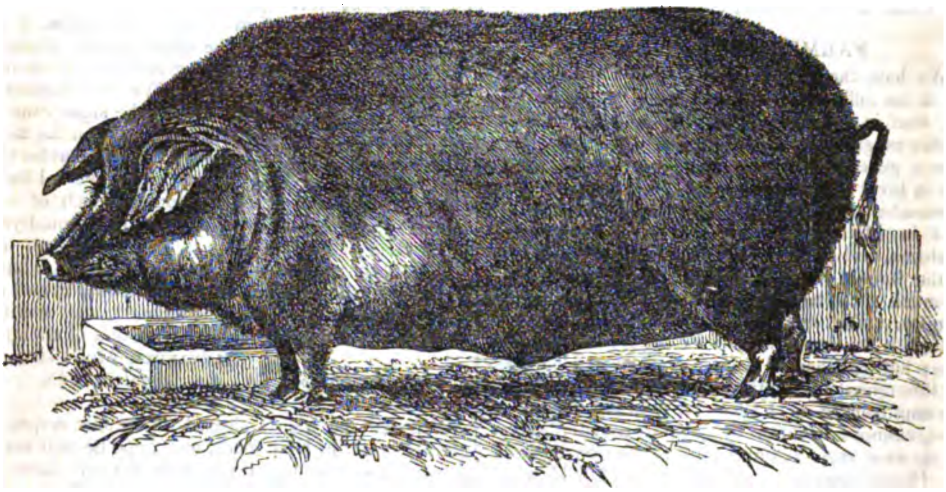
Clayey soils are universally plowed in the above manner in this State and the West. It is called "laying the ground up into lands." Subsoil plowing would be a great additional advantage.

A GRADE BERKSHIRE.

I forward you for insertion the portrait, weight, and dimensions of a valuable Berkshire hog killed by me on the 13th day of January last, which portrait was taken the same day by Mr. T. R. Brooks, of Little Falls, civil engineer. It is very faithful, and like life, and I would cheerfully recommend Mr. B. to the attention of the stock-breeders of this State as a promising artist.

This hog was kept on grass alone through the summer months, castrated the last of June, shut up to fat the 9th of October, and weighed when dressed, nett 721 lbs. His dimensions were as follows:—from the end of his nose to the end of his ham, 6 feet 7½ inches; girth around the heart close to the fore leg, 6 feet 8 inches; around the middle, 6 feet 10½ inches; around the flank, 6 feet 6 inches; height, 2 feet 11 inches. He had no extra keep whatever. His feed for a few days over a month before he was put up to fat, was principally boiled pumpkins and potatoes, mixed with sour milk, and no meal; and after being shut up to fat it was for the most part dry corn. He was judged to gain 3 lbs. per day, from the time he was put up till the day he was killed. If he had been castrated in the spring, and kept on meal all summer as many farmers keep their hogs, he would have weighed at least 850 or 900 lbs. It has been said by some that this hog was not Berkshire, because he was so large, and for that reason I will give a brief history of him in order that your readers may see what improvements may be made by perseverance.

BLACK HAWK.—FIG. 52



Bred by Z. B. Wakeman, Esq., Herkimer, N. Y.

This hog was the seventh cross on the native or common stock from Berkshire boars, breeding from young sows, paying particular attention to size, length of body, and the general fine points as a breeder, and never was bred the least way connected to my knowledge. Observing these rules, your readers will see at once by looking at the above portrait, what improvements can be made on our common stock if we felt disposed. It is astonishing how indifferent farmers are about improving their stock in this way; it costs but a trifle in comparison to what it does to buy blooded animals. I know farmers of my own acquaintance, if they felt disposed, could drive their cows to good Durham bulls; their ewes to splendid South-down bucks; and their sows to fine Berkshire boars; but will they do it? No; yet if they could make all these improvements for nothing, or get their sheep to your bucks in the night (like a certain individual in my acquaintance), they would do it; and then if they want full-blood animals they would be much as the old Dutchman was, who drove a sow of the genuine Landpike breed to a fine Berkshire boar, for the purpose of getting some full-blood pigs; for he said his sow was Berkshire, because she was *black*, and because his pigs were not full-blood, or as good as the boar, that was the first and last of his improvements, so away went the dollar. Now, Mr. Allen, these are *facts;* and when farmers commence with such animals as the old Dutchman's sow was, they want to follow it up at least 5 or 8 years, to make any decided improvements; and then they want to understand all the necessary rules of breeding, which they may learn by reading some books on the subject.

Speaking of the rules of breeding, puts me in mind of an anecdote I heard not long since, which is a *new* idea in the art of breeding. It is this:—an old Dutchman had a small flock of sheep, and the time had come when a buck should be with them. Well, he went to the owner of him, and what to do he did not know. As for hiring or buying a buck that was out of the question. But his good wife was very anxious that they should be increasing their flock, even if the wool was not quite as good; "for," said she, "we got good many big galls, and dey can spin de wool so well as can be." So the old Dutchman calls up his son Hanst, and says to him; "Hanst, you must go and put de boar long mid de sheeps, as pig's wool be betters than no wools at all." So Hanst goes and gets de boar and puts him mid de sheeps.

Now this no doubt improved the *hog's* wool; but whether it improved the *sheep's* wool I am not able to say. Z. B. WAKEMAN.

Herkimer, March 3, 1845.

We forgot one thing about the above cut, and that was to direct the artist to give the boar's tail the proper Berkshire quirl. However, our readers can easily supply this omission with a little imagination. The breeding does Mr. Wakeman great credit, and shows his brother farmers how much can be done with small means. In color, general shape, &c., Black Hawk looks like a thorough bred. Put a fine prick or forward ear on to him, and finer, softer hair, and he would be quite perfect. We think the portrait life-like, and *hog all over*, and have not a doubt if Mr. Brooks would devote himself to animal painting and drawing he would excel; for the above is certainly indicative of considerable genius in that line.

STALLS OF MR. PELL.

The annexed is a perspective view of two stalls in the stables of R. L. Pell, Esq., of Pelham, N. Y., which we think very complete. The only alterations that we can suggest for the better, would be to have the upright posts of the divisions, *j, j*, fastened strongly by a tenon to the beam overhead, and then let the division sides be cut down slanting to the floor, commencing the slant about 4 feet from the manger, so that the horse or ox could not injure its hock bones or quarters against the planking. The slant should not be so short as to allow the animal an opportunity of kicking over it against others in the adjacent stalls to their injury.

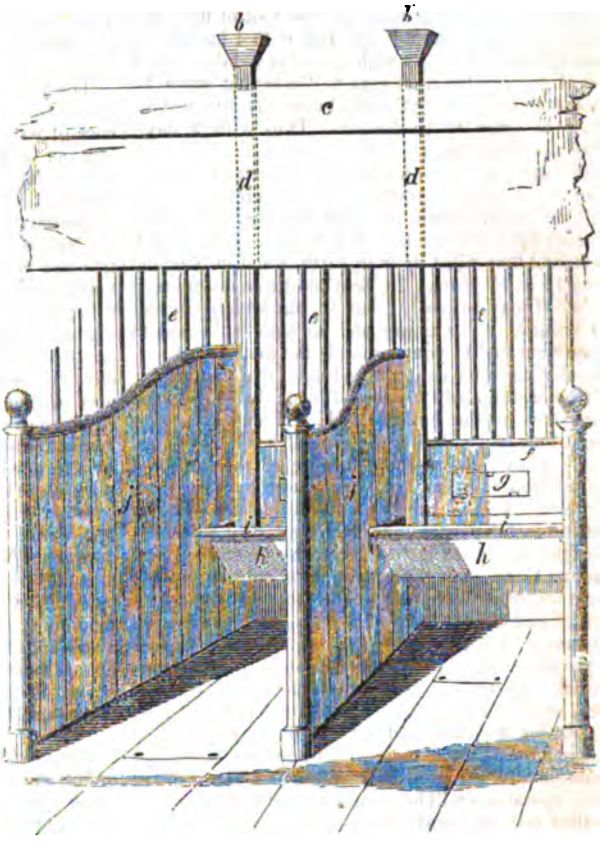


FIG. 53.

a, Hay-loft. Behind the hoppers *b, b*, are holes in the floor through which the hay is put down into the racks *e, e, e*.

b, b, Hoppers.

c, Floor-beam.

d, d, Conductors which lead from the hoppers to the manger. Close behind *b, b*, are the grain-bins, so that in feeding the horses, it is only necessary to take the requisite quantity of oats from them, and pour into the hoppers. The groom will thus feed a large number of horses in a short time without the necessity of leaving the hay-loft.

e, e, e, Hay-racks, with oak rollers 4 feet long and 2 inches in diameter, standing perpendicularly 3 feet from the wall. They have round gudgeons at each end fitted into round holes in the bottom and top pieces of the rack. As the horse pulls on the hay to eat it these rollers revolve easily, and he thus gets just what he wants. The bottoms of the racks are latticed, so that the hay-seeds can fall below into the seed-box *f*.

f, Seed-box.

g, Door of seed-box to empty it of the hay-seed.

h, h, Trough running the whole length of the stalls.

i, i, Oak rollers over the edges of the troughs, 3 inches in diameter. The horse will not gnaw this; for the moment he attempts to take hold of it with his teeth, it revolves, and he cannot hold it.

j, j, Stall divisions 5 feet wide. The posts at the end of these are of turned oak.

PLOWS OF RUGGLES, NOURSE, & MASON—We are of opinion that we cannot do our agricultural friends a greater favor, than occasionally publishing the voluntary and unbiassed opinions of gentlemen in different parts of the United States, on the merits of these plows. Mr. Shepherd, of Tallahassee, Florida, thus writes us: "I shall soon order more of your valuable plows, which I think decidedly the *very best and cheapest* I have ever used."

Mr. Steele, of Dayton, Ohio, says, "I have compared the Eagle plow you sent me with the best in use here, and find it vastly superior to any of them."

Mr. Townsend, of New Haven, Connecticut, writes: "The Eagle plow I had of you is the best I know. My Scotch plowman says, after using it five or six days, that it is the best he has ever seen in this country; and my Yankee plowman, who has been between the handles of all sorts of plows most of his life adds, that it beats all the things to turn up and over the soil, that he ever took hold of."

UNDER DRAINING AND SUBSOILING IN GEORGIA.

I HAVE under drained 60 acres, that is, sunk a drain at every hundred feet, 3 feet deep, filling the first 18 inches with bushes, and the remainder with the soil to the surface. At the commencement of this process we made our drains two feet wide, and three feet deep; and to finish the whole, cost three days' labor upon each hundred and five feet. In the course of my operation, and by procuring very narrow hoes, 4 inches wide, and making the first foot of the drain a foot wide, and the 2 lower feet 6 to 4 inches, we accomplished 315 feet with two days' labor. If I live, I propose the next year to divide that space by another drain; during the third year, the intermediate space is again to be divided. Thus with 2 days' labor the first year, and 2 the second year, and 4 the third year—8 days in all to three-quarters of an acre —or in round numbers 10 days per acre, our lands will be underdrained at every 25 feet. Sir John Sinclair says, drains filled with bushes, covered with sods, and then filled up with earth, stand in Scotland from 15 to 25 years. In Scotland these underdrains of wood may be costly; but in our woody country no material is so cheap and so abundant; and to adapt your end to your means is the first law of philosophy, in every country, and upon every subject.

I have subsoiled 170 acres of land; that is, between our ridges in the hollows, which I suppose to be about four inches below the general level, I run the Eagle plow right and left, turning up the furrow 6 inches deeper, in the hollow produced by these two furrows. I then run the subsoil plow I suppose about 8 inches deeper, thus reaching 4, 6, and 8 inches —in the whole, 18 inches below the general surface, and, as I hope, mingling the mineral substances that were below, or have been carried there by the operation of culture and heavy floodings, with the vegetable matter of the surface soil. Again, the next year I propose to repeat the same operation, on the intermediate spaces, and thus mingle the soils 18 inches deep, generally over the field. The lands will then be left for 3 years, and with alternate culture and such manuring as we may give, I hope our lands, and consequently our crops may improve. The result of these operations will be communicated to you as soon as they distinctly make themselves known.

THOMAS SPALDING.

Sapelo Island, April 24, 1845.

PACKING PROVISIONS FOR THE ENGLISH MARKET. —Mr. Rotch, writing us from London, says:

The early attention you asked of your readers to the English mode of putting up provisions, begins already to manifest itself in the very improved manner in which they are now brought to this market, and the improved prices they command It is no small encouragement to know that Herkimer and some other of our dairy counties are successfully competing with Cheshire and Gloucestershire in the London market, in the very article of cheese, for which the latter have been so long famous!

Bacon for the London market must not be enveloped, as for the country consumption, with a thick coat of fat; on the contrary, it should have but little fat, and its muscle or lean parts must be well marbled with it. However, as yet, bacon is not cured to any extent in the northern States. Tongues have been sent here, but have been so badly trimmed, so bloody, and so slovenly put up, that they did not sell for more than half price. Properly put up, and they would have sold from 4*s.* to 4*s.* 6*d.* apiece; for here they are sold at 4*s.* 6*d.* to 5*s.* 6*d.*, when cured as they should be.

CREAM HILL SCHOOL.

THIS school has recently been commenced at West Cornwall, Conn., with flattering prospects. Mr. T. S. Gold, one of the principals, called upon us the past month, with the following explanation in regard to it.

The plan of this institution is to receive a select and limited number of pupils, under the superintendence of well qualified teachers, to be fitted for college, or any of the useful pursuits of life. This school embraces two important departments of instruction. *First,* Thorough attention to the various elementary classical and scientific branches taught at the best academic institutions. *Second,* Both scientific and practical instruction in agriculture and horticulture, embracing the most approved method of tillage, rearing of stock, cultivation of trees, the laying out of grounds, ornamental gardening, chemical analysis of soils, composts, &c. A portion of each day will be allotted to these objects, so that the pupil may become a scientific and practical farmer.

The farm containing two hundred acres, with convenient buildings, situated on Cream Hill, surrounded by a picturesque country scenery, furnishes a location unrivalled for healthfulness, and freedom from any immoral tendencies, and peculiarly fitted for such an institution. The Housatonic railroad affords daily access to New York. The students will become members of the family of the instructors. A parental supervision will at all times be exercised over each individual. All will be treated with kindness, and every attention rendered, with affectionate regard to health, deportment, and morals. The institution will be conducted by SAMUEL W. GOLD, THEODORE S. GOLD, and THOMAS R. DUTTON.

RURAL ARCHITECTURE.—There is great want of architectural taste and economy of arrangement, in every part of the country. Those who can only build at the least possible expense have no need to consult appearances; but there are those who build with reference both to economy and taste, and for the benefit of such I take the liberty to ask you, or some of your able contributors, for a plan of a respectable dwelling, with suitable out-houses and garden for an ordinary sized family, near a thriving village—such as may not cost altogether over $2,000 or $2,500. It is to be situated on a slight elevation, with five acres of land attached. There are many houses of this description, built every year in such situations, which are taken in a great measure as models, as far as is consistent, for farm-houses in the country around, and thus we see a kind of sameness in buildings through the country, particularly at the west. A plan or description of such buildings as I have attempted to describe, in your next number, would oblige A RECENT SUBSCRIBER.

Ohio, April 5, 1845.

THE GEDDES HARROW.

Herewith we send a cut of a harrow now much used in this section. It was invented by Mr. George Geddes, of Tyler, N. Y. We have made some improvements in it, such as to confine each tooth with a screw nut and washer, tapering the tennon of the tooth through the timber, which does away with all liability to become loose. We have also given it a superior finish. Ruggles, Nourse & Mason.

Worcester, Mass., April 26, 1845.

In addition to the above we have received the following letter on the same subject, and shall probably give a cut hereafter illustrating the improvements spoken of by Mr. Mason.

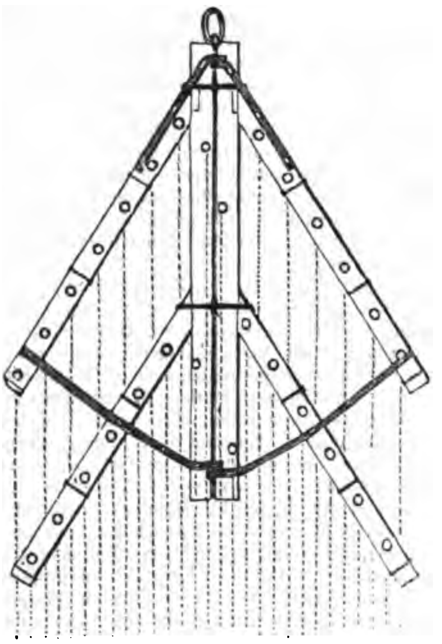


Fig. 54.

I am now residing with Mr. John Wilkinson, on the Wilkinson Farm, Union Vale, Dutchess Co. I have had a fair opportunity of testing Mr. W.'s harrow, which is an improvement on the joint harrow invented by Mr. Geo. Geddes, of Tyler. It was exhibited at the last State show, where it took the premium, and was pronounced by all who saw it to be superior to anything of the kind which had ever been offered to the public. The advantages which Mr. W.'s harrow have over Mr. G.'s are these: Mr. W.'s has very ingeniously arranged handles for lighting it up when clogged; it has round iron teeth instead of square ones; with a pair of draught clevies, so arranged as to elevate the draught some 4 inches above the level of the frame of the harrow, which so applies the propelling power that the team may be attached as close as they can walk, and it still works level, and is decidedly the best I have ever seen; it also differs from Mr. G.'s in one other particular, which is, that the pieces of the frame in which the teeth are inserted, are placed so as to form a less acute angle with the centre timbers, which, Mr. W. says, renders it much less liable to clog, and the same weight or dimensions of material will make an implement that will spread over about one eighth more surface.

Should any person desire a harrow of this construction, by addressing a letter, post-paid, enclosing $12, to John Wilkinson, Poughkeepsie, Dutchess Co., N. Y., a harrow made in the best manner, and of the best materials, will be forwarded to any place at the risk of the purchaser. T. M. Mason.

WESTERN CALENDAR FOR JUNE.

In this month, corn, which was planted in March, in rich ground, will attain the height of eight to twelve feet, if the season shall have been favorable. During this rapid growth of corn, the plows should be kept steadily running. It should be plowed during this month at least *three times*. If it can be gone over *four times*, during the month, it will be the better for it. If the land shall have been lying in grass for some years, the plowing of corn every ten or twelve days will do very well. But if it be a stiff soil, and liable to bake, it should be plowed once a week, or as nearly so as practicable. In the more southern latitudes, in general, early planted corn will need no plowing after the first of July, if the season has been tolerably favorable, and the corn carefully cultivated. But in more northern latitudes, say above 39°, or where the corn has been planted late, it will be proper to continue plowing to a later period, according to circumstances.

In the latter part of this month, clover meadows, and those composed of a mixture of clover and salem, or orchard grass (*dactylis glomerata*), should be cut. This operation should be performed by the hands not engaged in plowing, and should be completed before the time for harvest arrives. All other work, which is necessary to be performed before harvest, should be diligently attended to during this month; and especially the garden should be cleaned out, and put in the best possible order; the hay hauled to the mow, or put in stack; and everything else done which would interfere with the operation of cutting and securing the grain harvest.

In this month such of the cows should be put to the bull as it is desired should have early calves. But it is always prudent to reserve a proper number till October or November, so that they may have calves in the fall, and thus make good milkers for the winter. At least this is *necessary*, where milk-maids understand *the art of turning cows dry in six months* after they shall have calved. But this practice may be dispensed with, if the milk-maids understand the art of keeping cows *to their milk*, till near the time of calving.

During this month mullins and thistles bloom, and should be carefully cut, *close to the ground*, before any part of the seed ripens sufficiently to vegetate If not cut very low, they will branch out, and grow up to seed. As they will not again grow from the root the next year, all that are thus cut will be destroyed. But the cutting must be repeated every year, until all the seed in the ground shall have been exhausted; and even longer, if you shall have any *kind neighbors*, who will *gratuitously* raise seed for your benefit. A. Beatty.

Prospect Hill, Ky.

AMERICAN AGRICULTURAL ASSOCIATION.

THE regular monthly meeting of this Association was held in the rooms of the Historical Society, on Monday evening, the 5th May.

Hon. Luther Bradish, the President, at 8 P.M., took the chair, and after the minutes of the last meeting had been read and approved of, various donations were received, the most interesting of which were, 1st, a fossil penguin, found among the guano at Ichaboe, at a distance of 25 feet below the present surface of the soil; 2d, a collection of plants grown by Mr. Pell since the 19th of April last, which had been subjected to a galvanic action, among which were a tomato plant 36 inches in height, a species of climbing vine 72 inches high, and a plant of tobacco and cotton about 18 inches each—these plants were healthy and flourishing; 3d, a specimen of wheat grown upon glass without soil, and covered only by straw. Various rare seeds, &c., were also presented.

Communications were received from Messrs. E. D. Hurlbut & Co., and E. K. Collins, Esq., enclosing analyses of African guano, which were ordered to be placed upon record.

A letter was read from Thomas Spalding, Esq., of Sapelo Island, Georgia, accepting the appointment as one of the Counsellors of the Association.

A Report was received from the Executive Committee, recommending a change of the time of meeting of the Association, from the 1st Monday to the 1st Wednesday of each month.

Lieut. Col. Reed, Governor of the Island of Bermuda, was appointed a Counsellor of the Institution; also R. M. Paterson, M.D., of the U. S. Mint, at Philadelphia.

A communication was received from Major Le Compte, stating that on examination it appeared that the insect so injurious to wheat, various individuals of which he had examined, was the *Collondria Cronoria, or Curculio* of Pliny—not the *Collondria Orisa*, or weevil.

A communication was read by Mr. D'Jay Browne, on the history of the Isabella grape—see page 170 of this number.

Prof. Loomis explained a long and elaborate theory of storms, as elucidated by a violent one which passed over the United States early in February, in the year 1842. This theory was illustrated by a number of diagrams, containing a collection of meteorological observations obtained from almost every part of the United States, in consequence of a determination previously made to investigate, as far as possible, this most important subject. From these data Professor Loomis inferred, first, that violent and extended storms rarely have a single centre, but are a conglomeration of various minor *vortices*; that there is a gradual depression of the barometer towards the centre or node of each of these *vortices*, and that the tendency of the wind throughout the whole expanse covered by this storm was, as is usually the case in the United States, from the south to the north. From the above isolated facts, the learned gentleman inferred that it was possible to prognosticate storms, by means of a connected and carefully collated series of meteorological observations, a beginning toward which had been made in those now taken, according to law, at all the academies of this State. This communication was received with the most marked approbation.

Mr. Stevens made a communication in reference to cattle and beef. His first proposition was that there should be enacted sanatory regulations by our public authorities, with a view to prevent the slaughter of unhealthy animals for beef, and the sale of the beef of unhealthy animals. He mentioned that large numbers of the cattle of the West, Ohio, Indiana, Illinois, Missouri, and Kentucky, had diseased livers. Vast numbers of these diseased cattle are slaughtered annually. Of northern cattle he remarked few had diseased livers, perhaps not more than one in fifty. And livers are not the only parts diseased. Many cattle are *scrofulous*. The health of all, and of those in large cities, especially, demands that none but the meat of healthy animals should be eaten. But those who purchase have no knowledge by which to be guided. Therefore, persons should be appointed by our public authorities to view all animals before sale to the butchers; and after sale; and the carcass and especially the intestines and viscera after death; with power to prohibit the *exposure* to sale, and *sale* of cattle or other animals that show disease before death; and the exposure to sale and the sale of carcasses of diseased cattle after slaughter. He also embraced in his remarks the qualities of beef; the value of different cuts; the proper method of cooking, and the chemical condition of meats as affected by different modes of cooking.

Some conversation then took place, relative to the subjection of plants to galvanic action, and the most convenient mode of applying the galvanic electricity. Dr. Gardner stated, that intelligence had been received from Europe, giving an account of the introduction into the Parisian markets of vegetables fully a month earlier than usual, and of the application for incorporation in England of various companies which contemplate the establishment of large market gardens. A committee to consist of three persons, viz., Mr. Pell, Mr. Clark, and Mr. Doremus, was appointed to consider and report on this interesting subject.

A resolution was offered and passed relative to the communication of Professor Loomis, and proposing the nomination of a committee to procure an appropriation from the State for meteorological observation.

The following Resolution was proposed and unanimously adopted:

Resolved, That this Association offer a premium of $50, for a series of investigations into the nature and origin of the disease of the potatoe, to be made under the conditions imposed by the Executive Committee. These conditions have been made public in the daily papers, and may be seen on application to the Secretary.

* * *

AMERICAN AGRICULTURIST ALMANAC FOR 1846.—This highly valuable and indispensable little work is just issued from the press of Saxton & Miles, and may be had of the booksellers generally. It comprises 32 pages, handsomely embellished with numerous wood-cuts, and is full of useful matter for the farmer and his family. There are different editions with various sets of tables and monthly calendars, to suit the different latitudes of the Union. The story of Thrifty and Unthrifty is capital, and shows the farmer in the most agreeable manner the difference between good and bad management. Price very cheap, only $13 per thousand—less than one-and-a half cents each! Every farmer will be completely lost if he does not possess this valuable work.

Ladies' Department.

SWEETMEATS AND PRESERVES.

BY MRS. AFFLECK.

I PERCEIVE that you propose adding to the already well-arranged pages of the Agriculturist, a Ladies' Department. As I think the plan a good one, I have prevailed upon my better half to write out for you, at length, her methods of making some sorts of sweetmeats. I presume you are aware that the ladies of the South are justly celebrated as most excellent housekeepers; and that in *this* department they are particularly so. At some of our fairs (beg pardon, *shows*) the most beautiful assortments of sweetmeats have been exhibited. And whenever and wherever Mrs. A. has shown jellies and brandied peaches, &c., she has carried the premiums. I mention this that you and your readers may know how to value the following directions. T. A.

Directions for making Sweetmeats.—These directions are intended for the making of those sweetmeats, alone, of the richest and finest quality, requiring the very best, and perhaps the most expensive materials. When so made, and as late in the summer as the ripening of the fruits will admit of, and kept in a cool dry place, they may be preserved through the hottest summers even of the South—otherwise there is danger of their undergoing an acetous fermentation. The *requisites* for those intending to follow these directions are, a kettle or kettles, a furnace, tin skimmer, steel balance or beam and scales, a supply of good hickory or oak ashes, and of charcoal. When any of these are *borrowed*, there is danger of the preserves not keeping!

Peaches.—The best peaches for sweetmeats are clingstones, such as are of a pure white or yellow color *to the stone*. Those having any admixture of red are unfit for the purpose, as they will not keep. The late Newington is an excellent variety. The fruit when not yet *fully ripe*, certainly not *soft*, must be picked by hand, so as to avoid all bruises. Having prepared a kettle of *very strong* lye, which is kept at boiling heat on the furnace, a sufficient number of peaches to cover the surface is dropped into it, and there allowed to remain until the *outer surface* skin begins to break, which, if the lye is sufficiently strong, will require *but a few moments*. They are then taken out—some one being ready to take them up, one at a time, and rub off the downy scurf with a coarse rough cloth. When this is well done, the skin of the fruit will resemble that of the nectarine in smoothness. As they are thus cleaned (rubbed) they are *at once* dropped into cold water to prevent the discoloring effect of the lye. They are now carefully sorted; the most perfect, and *those with the skin unbroken*, are put aside for the brandied preserve; those for which slight specks may have been cut, or which may be otherwise imperfect, will do for the simple preserves. In order that those last may suffer no damage, whilst the others are in process of making, they are packed away with alternate layers of crushed lump sugar, in the proportion of 4 lbs. of sugar to 5 lbs. of fruit. They may remain thus for twelve hours if necessary.

The fruit selected for the brandied preserve is now weighed. Take, say, 15 lbs. of crushed lump or loaf sugar, to which add water sufficient to dissolve it; beat up the whites of two eggs to a stiff froth, which, with the shells broken up, add to the syrup. Let the syrup now boil freely for five minutes, carefully skimming off the froth that will rise; then strain through a linen napkin. This syrup, now perfectly clear and free from all impurities, is sufficient in which to boil 40 lbs. of peaches. Enough are put in the kettle, at a time, to cover the surface, and there kept at a steady boil for fifteen minutes, each boiling being spread on a dish to cool, until all are boiled. The syrup in which the peaches are thus boiled, extracts so much of the juice of the fruit, that it will not answer to put them away in. But with the addition of a small quantity of spirit, it makes the richest cordial imaginable—a pure *eau de pêche*, richer far than the *eau de noyau*. A fresh syrup is now prepared, in the same manner as before described, of the very best loaf sugar, in the proportion of two pounds of fruit to one of sugar. To this syrup is added a colorless spirit, in the proportion of one measure of the latter to two of the former. The best spirit for this purpose is *pure Spanish brandy*, which may occasionally be had as colorless as water, and is at the same time mild. Peach brandy, and Scotch and Irish whisky, are supposed to be too fiery. Fill the jars two-thirds with peaches, then fill up with this mixture. The jars must stand some four or five days unsealed that more spirit may be added if the fruit rises to the top, which is a proof that the syrup has become too much weakened from the extracted juice of the fruit. They should not be used until about Christmas. This sweetmeat is certainly not strictly temperance in its constituents; but although neither wine nor brandy is used in Ingleside in any other shape, so truly delicious is this preserve, that I have always pleaded for its use being continued. That you may also have an opportunity of judging of its excellence, Mrs. A. forwards you a small jar *via* New Orleans.

Peach Preserves.—The fruit put away for this purpose has yielded sufficient of its juice to the sugar in which it was packed to dissolve nearly all of it. Take out the peaches, and to the syrup add a small quantity of water; clarify and strain as before. Then add the fruit; boil moderately and steadily from two to two and a half hours, according to the size of the fruit—when done, they will be transparent. If free-stones are used, an incision is made on one side of the fruit, when the stones boil out in the syrup and are removed. Large cling-stones may be used, even if very acid, which they will be if red at the stone; they are cut in two, the stone taken out, and the fruit dropped in lime-water and allowed to remain about an hour, to neutralize the acidity and give firmness.—Peach marmalade does not keep well in this climate.

Plum Jelly.—The best fruit for jelly is our wild plum, far surpassing any other variety of plum, and even the red currant, so prized at the north. The fruit is gathered before it is fully ripe—when it has got its color, but is yet hard. When picked over, and washed clean, the kettle is filled with them, and water added until it appears at the surface, scarcely covering the fruit. They are boiled until the skin cracks; then carefully taken out and the whole put into a flannel bag, where they are left to drip until all the juice is had without crushing or squeezing the plums any more than can be helped. Prepare a quantity of syrup, as before directed, *very clear and rich*. Put in a six gallon kettle about a quart of syrup and plum juice, in the proportion of two measures of syrup to one of juice—in this the taste and judgment of the person making must be used, to determine the proportion. Have a clear charcoal fire in the furnace, on which place the kettle; allow the mixture to boil briskly for about fifteen minutes—the best guide in this is a little experience. The great secret in making jelly, to have it perfectly clear and firm, is to boil a small quantity at a time, so that it may be done quickly. If boiled long, as must be the case when the quantity is great, the color must darken.

The plum here spoken of is a native of the South; and not, I presume, peculiar to this part of it; although I have never, in all my peregrinations, seen it elsewhere. The fruit has a singular dark red color, with a whitish bloom; larger than the damson; flesh coarse-grained, firm even to hardness, and excessively sour; skin tough and astringent; ripens in August; some trees retaining their fruit until after frost. The tree is of vigorous growth, and makes an excellent stock for working other sorts on. It is most commonly found in old pastures. I presume it is allied to Kenrick's Canada plum, though not at all to any of our delicious varieties of the Chickasaw plum.

Plum Marmalade.—Take the plums from which the juice has dripped for making jelly, and add them to a syrup, made as before, in the proportion of one part of sugar to two of plums. Boil an hour, until the syrup and pulp become one stiffish mass; then strain through a colander. Put the strained pulp again in the kettle, and boil until thoroughly done, stirring with a paddle all the while, and you will have a fine marmalade. The residue, left in the colander, is spread on shallow dishes and dried in the sun, then packed away in jars for making tarts.

Ingleside, Adams Co., Miss., Jan. 17, 1845.

Preserving Fresh Meat.—We gave a very good article on this subject in our last, and now add another. But, first, animals should be properly butchered, or it is of no use to attempt to keep the meat. They must fast at least one day in the winter, and double that time in the summer, before being killed; for when not tolerably clear of food the flesh will almost immediately spoil in hot weather. As soon as the meat comes into the house let it be carefully examined and wiped, and if it has been blown by flies, that part must be cut off and thrown away. It should then be kept covered with a cloth, first scattering a mixture of salt with pepper, or ginger, or mustard, or any spices over it inimical to the fly. Now put it into the ice-house, the well, in the cellar, or a wire sieve, hung up in as cool, dry, and windy a place as can be found. Pieces of charcoal, or a complete envelope of it, is a very good method to preserve fresh meat.

Economical Mode of Cutting Cauliflowers.—Instead of cutting off the whole head of a cauliflower, leave a part on, of the size of a gooseberry, and all the leaves: second, and even third heads will be formed, and thus they may be eaten for two or three months; when, at present, by cutting the head completely off, the bed of cauliflowers are gone in two or three weeks.

Boys' Department.

Another Great Egg Laying Story.—You will see, boys, that we are now getting on *very swimmingly*, as the Polar Bear said, when he mounted a huge floating iceberg to breakfast on a seal he had just entrapped with his huge claws; for what between eggs and poultry, and other important matters monthly discussed in your department of the Agriculturist, we doubt whether there is so improving a set of boys in the country, as those who regularly con our journal; and if some of them don't turn out Governors and Presidents one of these days, and give credit to these pages for a part of their greatness, then all is, we shall be most egregiously mistaken Now for the egg story.

Rahway, N. J., April 19, 1845.

For the benefit of the Boys' Department, I herewith send you a copy of my poultry account for 1844, as a match (and rather more) to that of my friend Carpenter's of Poughkeepsie, which appeared in your February number. I give it as it stands on my book. The *form* may be of service to some of your young readers. I would say, that there is no estimate or guess about it; all the details are matters of actual measurement and daily record.

	Cr.		
3063	Eggs used or sold, at 1 c.		$30.63
26	Turkeys, ditto, 216 lbs. at 8 c.		17.28
20	Chickens, ditto, at 25 and 31 c.		6.06
4	Geese, ditto, 51 lbs., at 5 c.		2.55
10	lbs. do. Feathers, at 75 c.		7.50
			$64.02
	Add valuation, Dec. 31, 1844, viz.:—		
44	Hens and 6 Cocks, at 25 c.	$12.50	
6	Turkeys, at 62½ c.	3.75	
4	Geese, at 62½ c.	2.50	
			18.75
			$82.77
	Dr.		
	Valuation, Jan. 1, 1844, viz.:—		
28	Hens and 3 Cocks, at 25 c.	$7.75	
16	Turkeys, at 62½ c.	10.00	
1	Pair Geese purchased,	1.75	
35½	Bushels Corn consumed, at 50c.	17 75	
			37.25
		Profit,	$45.52

The Manure.—Respecting the value of this last item, I intend trying some comparative experiments during the present summer, the results of which will be at your service. I should state in my account that 3 hens were killed by accident early in the spring. The hens have comfortable quarters with corn and water always by them. L.

Be kind to the Birds.—It has been ascertained that a pair of little sparrows, with young to maintain, will destroy 3,360 caterpillars per week. We have no doubt that the birds of every country town destroy tons of insects, which, if left to grow to maturity, would devour all our grain, roots, and grass crops, and ultimately make a famine in the land. Consider, then, that birds are among your best friends, and that they should be cherished and protected, instead of stoned, shot at, and tormented in various ways.

FOREIGN AGRICULTURAL NEWS.

By the arrival of the steam-packet Britannia, we have our European journals to the 4th of May.

MARKETS.—*Ashes* neglected and consumption falling off. *Cotton* has advanced ⅛ to ¼d. per lb., and a large business was done in it. It is considered, however, a mere speculative movement, in consequence of the Oregon question, and that prices will recede again. Stock on hand 860,000 bales, against 656,000 same time last year. *Flour* was depressed and as dull as ever. In American Provisions large transactions were daily taking place. *Beef* and *Pork* have both advanced. *Cheese* and *Lard* brisk, and a limited supply on hand. *Butter* has declined. *Flax* was rising. *Hides* little inquiry. *Tallow* the same. *Seeds* had fallen. *Tobacco* unchanged. *Turpentine* a small advance.

Money was more in demand, though unaccompanied by any advance in the rate of interest.

American Stocks, no transactions, on account of the Oregon war bubble, which deserves to be laughed at by every sensible man on both sides of the water.

Business Generally very good.

The Weather had changed from very dry to showery, and was highly favorable to the spring crops when the Britannia sailed.

Prince Albert is expected to lay the foundation-stone of the agricultural college at Cirencester.

Extraordinary Large Sheep.—The Exeter Flying Post says, on Thursday last, in the presence of several persons, the living weight of Mr. Thos. Kingdon's extraordinary wether sheep, Goliath, of the New Devon breed, was taken at Chapel St. Martin, Thorverton, when it weighed 405 lbs! It is a beautiful sheep [we doubt it; all animals of so large a size are universally coarse], and surpasses in size even those of last year, the living weight of the heaviest of which was 392 lbs.! This sheep has excited much attention with the agricultural public in this neighborhood.

On the Use of Soap Suds as a Manure.—About twelve months ago I had at my command a tank that received nothing but the suds that came from the laundry: I thought I would try its effects. The first thing I tried it on was hyacinths in pots, and the result was most astonishing. I tried some of Potter's liquid guano at the same time, as an experiment, but found the suds most beneficial. Many persons who saw the hyacinths, said they never saw finer. I used it alternately with pure water. I also tried it with strawberries that were forcing, and though the plants were previously very bad ones, the result was very satisfactory. French beans in pots were also a great deal improved by its use, and I think if it were extensively employed it would be found very beneficial to a great many plants. It must be remembered that it was not used fresh from the wash-house, but was allowed to run into the tank, which was always nearly full; by this means it may be used without the least injury to any growing plant requiring such stimulus.—*United Gardeners' Journal.*

Agricultural Congress in Paris.—An agricultural congress, after the fashion of the scientific associations, which meet yearly in England, and in various kingdoms of the continent, is to assemble in Paris, for the first time, on the 8th of May, under the presidence of the Duc Decazes. The meeting is intended to be a yearly one. The present session will last for six weeks; and the *grand referendaire* will open to the congress the grand conservatory of the Luxembourg.—*New Farmers' Journal.*

Artificial Manures.—Professor Liebig has an excellent article on this subject in the last number of the Agricultural Magazine. We wish we had room for the whole of it, but can merely give the closing paragraph. "Intelligent farmers must strive to give to the soil the manuring substances in such a state, as to render possible their acting favorably on the plants during the whole time of their growth. Art must find out the means of reducing the solubility of the manuring substances to a certain limit; in a word, of bringing them into the same state, in which they exist in a most fertile virgin soil, and in which they can be best assimilated by the plants. The whole attention of chemists should be directed to the attainment of this end. I am myself occupied with a series of experiments which lead me to hope, that this problem can and will be solved. If it succeed, as I have no doubt it will, in combining the efficacious elements of manure in such a way as that they will not be washed away—their efficacy will be doubled; if in this manner the injurious consequences of the present system of draining be removed, agriculture will be based upon as certain principles as well-arranged manufactories. Manufactories of manure will be established, in which the farmer can obtain the most efficacious manure for all varieties of soils and plants. *Then* no artificial manure will be sold, whose exact amount of efficacious elements is not known, and this amount will be the scale for determining its value. In the application of such rationally compounded manures, the good-will of the farmers must help to bring them to perfection If, then, by the united efforts of the manufacturer and the farmer the best proportions are ascertained, a new era will arrive in practical farming. Instead of the uncertainty of mere empiricism, all the operations of agriculture will be carried on with certainty; and, instead of waiting the results of our labors with anxiety and doubt, our minds will be filled with patience and confidence."

Culture of Cabbages by Slips.—Take healthy sprouts; cut them off close to the stalk of the cabbage; let them lie in a dry, cold place two or three days. The cauterizing of the wounds is much assisted by applying a little wood-ashes to them. Plant the cabbages, and they require no farther trouble. Valuable sorts may thus be preserved unchanged, and a regular succession obtained throughout the year. Cabbages, I am told, are improved by having lime-rubbish incorporated with the soil in which they are grown.—*Gar. Chron.*

To make a Ewe own her Lamb.—A friend of mine, the other day in my hearing, told a party who was complaining of his ewes deserting their lambs, that once, when such a circumstance occurred to him, he tried many ways to make the dam take to its offspring; amongst others, by holding the ewe by the head, while the lamb attempted to suck; that one morning, being so engaged in a barn, a little dog happened to run in; he barked vigorously at the strugglers, and frightened away the lamb, but the natural instinct of affection in the mother for its offspring was by the circumstance aroused; she immediately freed herself from restraint, and interposed her protection by attacking the intruder. Her alarm was suffered to continue for a minute or two, when the dog was turned out. The sequel to the anecdote was, that the ewe took to the lamb from that time, and that whenever my friend found a similar case he always adopted a similar remedy, and invariably found it succeed.—*Ib.*

Manure for Onions.—I have always succeeded in the following way, being the surest and most economical: Take off about 4 inches of the earth on the surface, the length and width of your bed, so that the ground under be solid. Spread stable-dung well over, about 4 inches in thickness, and then cover the same over with the earth taken from the surface. Sow your seeds rough, and you are almost sure of an abundant crop; and the land is the best for Parsnips and Carrots the following year.—*Ib.*

A Miniature Elephant.—A sow in the possession of Mr. William Higgs, pig-breeder, living at Phœnix Cottage, on the Tewkesbury road, has farrowed 12 young ones. With reference to 11 of these, there was nothing remarkable, but the other was certainly a most extraordinary *lusus naturæ*—the head presenting exactly the appearance of that of an elephant. The lower jaw, the trunk, the eyes, the ears all exactly corresponded. This singular little animal only lived one hour and ten minutes.

Emigration to America.—It is said that more people are preparing to emigrate to Canada and the United States this year than ever before known.

Oil Cake regularly fed to calves is found to prevent the malignant disease called the black-leg.

The following items we cut out from the New Farmer's Journal:—

Professor Liebig, the eminent chemist, is said to have taken out a patent for a variety of artificial manures, suited to all the principal crops which are grown in this country.

Sagacity of a Pony.—Last week, a pony, the property of Mr. Cookson, Bottom Boat, near Wakefield, having lost a shoe, went alone to the farrier's shop, got shod, and returned home to his master.

Inferiority of Dutch Cheese.—The reason that Dutch cheese is always inferior in flavour, &c., to our English—has a bad sale—and is at last driven out of the market by the American, the flavor and richness of which is so superior, that their method of soiling their cows in house always, is the main cause of their ill-flavored cheese and butter. Cut food given to cows never answers so well as the natural pasturing of the animal—so I have found, after several years keeping cows. Soiling cattle for the butchers is one thing, and the soiling of cows for their milk is another; although the animal lives and does well, and is quite healthy.

Destroying Worms.—An infusion of the leaves of the common walnut, when poured upon the ground, brings the earth-worm immediately to the surface.

A Great Layer.—A small common hen, the property of Mr. Grierson, slater, Dunbar, has, from the commencement of the laying season last spring till the close of the present season, produced the wonderful number of *two hundred and eight eggs.*

A Wonderful Ewe.—A ewe belonging to Mr. William France, of Quernmoor, yeaned, when one year old, two lambs; when two years old, three; when three years old, four; when four years old, four; and when five years old, four; making in all 17 lambs in the space of four years. But after yeaning this year, both she and her progeny died in one day.—*Lancaster Gaz.*

Ley of Soap-boilers as Manure.—If, in making soap, vegetable ashes, lime and common salt be used, a ley will be obtained containing much chloride of potassium, some gypsum, sulphate of potash, common salt, and 3 to 4 per cent. of brownish soap. In some soils, and for some crops, it is very good manure; thus it will show itself useful wherever the soil is deficient in chlorine and potash, and where plants are grown which require those substances to a considerable amount. The soap-boilers let the ley run off as useless fluid, so that it may be always had very cheap. It is commonly used for the manuring of meadows overgrown with moss; but we must take care not to use too much, else it will destroy not only the moss, but also the useful meadow herbs; in order to avoid which, it must be diluted with water, and used in autumn, or early in spring. It would be very well to slake burnt lime with ley, as it would thereby be dried off. Professor Lampadius has used this mixture to advantage for the manuring of rye. I manured with ley for barley, which was improved thereby strikingly, but the effect was not very visible till the second year.—*Far. Jour.*

To Preserve Wall Nails from Rusting.—Heat them quite hot on a fire shovel (they must not be red hot), and then drop them into a glazed flower-pot saucer, half-filled with train oil. Thus prepared, they never rust, will last for many years, and it is said the effluvium from the oil keeps insects from the trees. The nails should remain some hours in the oil.—*Gar. Chron.*

To Preserve the Bark of Trees.—The following is a composition to preserve the bark of trees from being injured by hares and rabbits. Take three quarts of common train oil, one quart of the best tar (not coal tar), and four ounces of fine powder of rhododendron; mix them well together by the fire, shake it every time of using, and use it carefully in the same manner as paint: no hares or rabbits will injure the trees for six months after the application. The less quantity there is put on the tree the better, so that all parts within reach are brushed over.—*United Gard. Jour.*

Carrot Seed.—In sowing carrot seed, as it is so slow in appearing, it has been suggested to mix it with mustard seed, which comes up quickly, and enables us to hoe and clean the ground between the rows without injury to the line of seed. Some sow oats with the carrot seed. With all root seed I shall always mix twelve times its bulk of fine charcoal dust, as it is proved beyond a doubt it facilitates rapidly its growth in dry weather.—*Gar. Chron.*

Value of Agriculture and Manufactures in Great Britain.—Mr. Bain, in the Journal of Agriculture, estimates the agricultural productions of Great Britain, at £600,000,000, and the manufactures at £47,000,000 Arguing for the necessity of an enlightened cultivation of the soil and an increased production he says: "While Rome continued to cultivate *her own territories*, she continued great and powerful; and the moment she ceased to cultivate, and received corn from her conquered provinces, she declined. The reason was this—abandoning the wealth that supported her people she abandoned her people, or she made them idle dependants upon others. The possessor of 10,000 Latian acres might, at a few shillings an acre, have a sufficient income *for himself and his herdsmen;* but this was not equal to *the state to the subsistence of* 10,000 *active citizens; so the cheap corn of* Egypt, *proved the ruin of* Rome. On the very same principle, the cheap corn of the Ukraine, *were it our own province*, would tend to undermine *Britain*, and I hope the principle is understood; wealth and numbers will always be where there is most steady labor in valuable matters.

Stock in New South Wales.—The whole of Port-Phillip district contains a population of 20,000 souls, occupying a territory larger than Ireland, for the greater part in perfect peace and security. This population possesses upwards of 1,500,000 sheep, 100,000 cattle, and about 5,000 horses, which yield an export of £300,000 per annum. This may be considered as the income of the population, giving an average of £15 a-year to every man, woman, and child.—*Quart. Journ. of Agriculture.*

Nitrate of Lime.—This is the most soluble salt known at 60°, one part of water dissolves four parts of this salt. It would form, I have no doubt, a valuable manure, especially for grass-lands, and might be prepared from our ordinary manure.—*ib.*

Agriculture and the Increase of the Human Species.—It is easy to see how close the connection is between agriculture and the multiplication of the human species. Cultivation has no other object than the production of a maximum of valuable substances in the smallest possible space.—*Liebig.*

Sweet Cider for Fever.—Dr. Brown says, in the Medical and Surgical Journal, that he found sweet cider, in a state of fermentation, of great benefit to himself and wife when violently attacked with fever. In health, he asserts, that unfermented cider was disagreeable to him, and he had drank none since a child.

Editor's Table.

Staple Agricultural Articles Shipped from Cincinnati.—A statement of the shipments southward from Cincinnati, of eight staple articles, during the year ending 31st October, 1814, compared with the receipts at New Orleans, of the same articles, during the year ending 31st August 1844, and their value.

	Receipts at N. Orleans.	Shipments from Cincinnati.	Total.
Pork, brls...........	484,460	209,040	$1,358,760
Beef, brls...........	49,363	20,992	625,735
Bacon, hhds. and *v.s.*	40,305	22,754	811,181
Lard, kegs...........	976,166	360,525	94,464
Flour, brls...........	562,507	185,633	742,532
Cheese, lbs...........	2,264,940	998,946	706,733
Butter, kegs...........	20,831	16,566	66,600
Whisky, brls........	86,947	94,231	66,264
			$4 472,269

Of these eight leading articles of western produce, it would seem that Cincinnati alone ships more than one half of the entire receipts at New Orleans, leaving to the several ports above this on the Ohio river, to Madison, Louisville, and the other ports below this, to the rich valleys of the Wabash and the Illinois, to St. Louis and all the other ports on the Mississippi river, to supply the balance.—*Cin. Gazette.*

New Cotton Gin.—A few days ago we saw Mr. Sherard's new patent cotton gin in full operation, and we can assure those who have not seen it, that it greatly improves the quality of the cotton ginned, and is altogether a beautiful piece of machinery. It is very simple in construction and easily kept in order. The saws are nearly like those of the ordinary gin, save a slight difference in the cutting of the teeth. The ribs are circular and revolve with the saws; behind the ribs is a cylindrical brush, revolving against the saws, which takes out motes, trash and dirt; still further behind, and a little below, is a similar brush, which takes off the cotton from the saws and carries it behind a gate, which entirely removes the remainder of the trash, dirt, &c. Still further back is a brush with wings, which blows the cotton through a flue with a tin bottom perforated with oblong holes similar to those of a tin lantern, through which, should there be any remaining trash or dirt, the whole will pass. This flue has one advantage over all others—it never chokes up, and consequently does not require delay of time in clearing it.

The whole is carried by two hands, and works most admirably. A fifty saw gin, the size of that Mr. Sherard now has in operation, will gin four bales per day. We would remark, that the improvement may be attached, at small expense, to the ordinary gin; and further, Mr. Sherard's new gin will cost but a trifle, if any more, than those now in use.—*Sumpter County Whig.*

To Destroy Cut Worms.—Mr. Ruffin, of Virginia, says these may be destroyed by continued tillage and a naked, open soil.

To Make Wood Incombustible.—Take a quantity of water proportioned to the surface of wood you may wish to cover, and add to it as much potash as can be dissolved therein. When the water will dissolve no more potash, stir into the solution first, a quantity of flour paste of the consistency of common painter's size; second, a sufficiency of pure clay to render it of the consistency of cream.

When the clay is well mixed, apply the preparation, as before directed, to the wood; it will secure it from the action of both fire and rain. In a most violent fire, wood thus saturated may be carbonated but will never blaze.

If desirable, a most agreeable color can be given to the preparation by adding a small quantity of red or yellow ochre.—*Buffalo Com. Advertiser.*

Fire Blight.—Mr. Bartlett, in the New England Farmer, maintains that this disease arises from intense cold. In 1810 the effect was to freeze the sap between the bark and wood, and in many instances it caused the bodies of the trees to split (from the expansion of the frozen sap) from the ground to the limbs. The destruction of the peach and plum trees throughout this section of the country, was general and total. The next spring, most of the apple trees that suffered, leaved and blossomed as usual, but the small apples and leaves mostly shed off during the summer: many trees, however, blossomed a second time, and to some superstitious persons it caused much alarm: they thought it the "forerunner of a bad season,"—and so it proved; for a large portion of the trees, in many orchards, never put out any leaves after that season. My father had an orchard, the trees of 30 or 35 years' growth, upon a good, deep, loamy, and rather moist soil; every tree—perhaps 35 or 40—perished: but he had others on a poorer and more gravelly soil, with a northern exposure, that suffered but little. This was generally the case through this section of the country.

Such *peculiar* seasons as 1810, and 1831, in New England, and 1843, in the several States named by Mr. Beecher, may occasionally occur; when they do, the safest way will be to saw off all small trees below where they have turned dark-colored beneath the bark, for if left with the tops on, the roots being uninjured, the sap will rise into the tree as freely as though the top was uninjured; but the rupturing and disarrangement of the sap vessels in the bark, and between the bark and wood, prevents the elaboration of the sap that takes place in the healthy tree. Repletion, fermentation, and acidity ensue, the whole tree becomes, if the freezing has been very severe, diseased to the very extremities of the roots, and the death of the tree is sure to follow. But if the body of the tree is sawed off in a healthy part, near the surface of the ground, before there is much circulation of the sap upward, there will be healthy sprouts from the stump, which may soon restore a nursery to its former value; and to guard against such a contingency, or peculiar season, I think it would be well for nurserymen to bud their fruit trees while small, as near the surface as possible. It might, in such seasons as above alluded to, save the trouble and expense of re-budding.

Value of Coal-dust for Strawberries.—Dr. C. Dean, of South Plympton, writes us that he set out 24 of Hovey's seedling strawberries on the 19th of November last—that several of them produced fruit last summer, that he put coal dust about some of them, and these were the ones that bore fruit; the others bore none.—*Mass. Plowman.*

Amount of Corn Fodder per Acre.—We notice in a report of Mr. Leak to the Pedee Agricultural Society of S. C, that an acre of corn when first cut for fodder, weighed 156,816 lbs.—over 70 tons; and that when thoroughly cured for forage, the same weighed 27,297 lbs.—over 10 tons. It was thought the dried forage would have been something more had not the corn been cut too early.

Improved Cane Cutter.—We were shown yesterday a cane cutter, the invention of F. G. Henderson, Esq., of this parish. It is much more simple than Mr. Bryan's, and possesses an advantage that renders the latter one useless on uneven fields, that of raising or lowering the knives according to the level of the field. It is moved on wheels instead of a sled, like Mr. Bryan's, and can be easily moved by one horse or mule and a driver. In fact, in our opinion, there can be no doub that this new invention will answer the desired object of saving a vast deal of labor and expense to the sugar planter. We shall notice it more at length on a future occasion.—*Baton Rouge Gaz.*

The Western Reserve Magazine of Agriculture and Horticulture. Edited by F. R. Elliott. Published by M. C. Younglove, at Cleveland, Ohio. Price $1 a year.—This is a new periodical of 24 pages octavo, neatly got up and illustrated. The articles in this first number are mostly on Horticulture, and are written with care and ability. We see that Dr. Kirtland is a principal contributor. There are few in the United States who have devoted more attention to fruits than he has, and none more capable of writing upon this growingly interesting subject. We wish this Magazine all possible success; but as to its desire to exchange, we shall not comply with it so long as it extracts from the Agriculturist without credit. It has taken four little articles in this first number from our foreign news department, without naming the source from whence derived; thus making them appear like editorials in its own pages.

Library of Choice Reading.—Under this title, Wiley & Putnam, 161 Broadway, are getting out a series of pocket volumes (price 37½ to 50 cents each), which demand attention. These are reprints from the best works in their class recently published in Europe. The works are handsomely got up, and are printed in a type that one can read with comfort, forming a perfect contrast to the vile printing that recently flooded the land, under the title of cheap literature, and which is now generally thrown aside as so much waste paper. We heartily commend the enterprise of Messrs. Wiley & Putnam to public favor.

The Farmer's and Emigrant's Hand Book; being a Full and Complete Guide for the Farmer and Emigrant. Comprising the Clearing of Forest and Prairie Land, Gardening, Farming generally, Farriery, Cookery, and the Prevention and Cure of Diseases. By Josiah T. Morehall. pp. 492. Price $1. D. Appleton & Co., 200 Broadway.—The above is a pretty ambitious title, nevertheless the book will be found highly useful, though not in as enlarged a sense as the author would lead us to infer. It is almost entirely a compilation from the agricultural periodicals of the day, and is designed more particularly for the emigrant than the farmer. It is neatly got up, and handsomely embellished.

Every Man his own Farrier: Containing the Causes, Symptoms, and most approved Methods of Cure of the Diseases of the Horse. By Francis Clater and his son John Clater. With Notes and Additions, by J. S. Skinner. Lea & Blanchard. Philadelphia.—This work has passed through twenty-eight editions in England, and is now given, for the first time we believe, to the American public. It is a useful work, and ought to be in the possession of all who keep horses. The few notes Mr. Skinner has added are judicious; but we wish he had gone further, and simplified some of the recipes, and made them easier to be understood by the farmer and groom.

Narrative of the United States' Exploring Expedition; during the Years 1838, '39, '40, '41 and '42. By Charles Wilkes, U. S. N, Commander of the Expedition. In Five Volumes octavo, of about 450 pages each. Illustrated with 300 handsome wood cuts and Maps. Price $10. Lea & Blanchard, Philadelphia.—Few things have tended more to ennoble us as a nation, than the sending out this Exploring Expedition. The discovery of a new continent in the southern polar regions is one of the brilliant results of it, and the accumulation of a vast fund of scientific and geographical knowledge. Agriculture, we are glad to see, was not forgotten by the accomplished commander, as we intend to show our readers hereafter by various interesting extracts from the work under notice. The narrative is pleasingly written, and abounds with hazardous adventures, scientific details, and racy descriptions of savage nations and scenery. We have had a few hours' leisure only as yet to turn over the pages of the Expedition, and cannot at present speak of it more particularly. The work is an honor to the country, and highly deserving a perusal.

Messrs. Lea & Blanchard have also for sale the beautiful edition in Imperial octavo, five volumes and an Atlas, containing 64 large and highly finished line engravings, embracing scenery, portraits, manners, customs, &c.—forty-seven exquisite steel vignettes worked among the letter-press; about two hundred and fifty finely executed wood-cut illustrations; fourteen large and small maps and charts, and nearly 2,600 pages of letter-press. Price $25. Also, still on hand—a few copies of the edition in imperial quarto, like those printed for distribution by order of Congress. Price $60.

London Quarterly Review *for March.*—Foreign Quarterly & Edinburgh Reviews *for April.*—We avail ourselves of the opportunity afforded by the recent re-issue of these well-known periodicals, to draw the attention of our readers more particularly to the valuable nature of Messrs. Scott & Co.'s republications. Independently of the excellent articles upon agricultural subjects which they frequently contain, they are peculiarly adapted to meet the requirements of our country friends. We are by no means inclined to concede that the farmer should be so completely engrossed by his occupation as to sever all connection from the world of letters; yet we are bound to admit that his labors are so incessant as to allow but little time for relaxation and mental improvement. Now here is the very thing that he wants—the reviews and magazines published in this series will keep him informed of the progress of literature, science and art, there is no formality, no repulsiveness in the style in which the subjects are handled: and indeed the articles frequently embody a more lucid and popular view of the matter in hand than the books which they ostensibly review. In fact they give a summary but comprehensive account of the present state of knowledge in all the varied departments of human inquiry. Instruction and amusement are so happily blended, that the mind will be cheered and gratified, while the bodily fatigue is forgotten. We are convinced that our country readers will find these excellent periodicals second to none—our own of course excepted—either for quality of matter or cheapness. The Reviews and Blackwood's Magazine, which constitute the series, supply 4000 pages of reading matter in the course of a year, and are furnished at the trifling cost of $10 per year. Of course any can be had separately.

Agricultural Agency at the South.—N. G. North, Esq., senior editor of the South Western Farmer, proposes himself as an Agricultural Agent for both sections of the United States. His residence is Raymond, Miss. He will make an extensive tour this summer in the south, and then find his way north the last of August, to attend our State and other agricultural shows at Utica and elsewhere. His object will be to examine stock, implements, seeds, nurseries, &c., &c. It will give us pleasure to be the medium of any communications from our friends to Mr. North. He and Dr. M. W. Philips, his associate in the conduct of the S. W. Farmer, have been appointed special agents of the American Agriculturist.

Colman's European Agricultural Survey.—We gave the contents of Part Third in our last number, since which it has been issued from the press. The perusal has fulfilled our anticipations, and so far as regards practical matter, we think it the best of the series yet published. We were particularly interested by his account of the Agricultural Schools in Great Britain and Ireland.

New York State Agricultural Society.

Cattle Show and Fair for 1846, *to be held at Utica, Sept.* 16, 17, *and* 18.

PREMIUM LIST FOR 1845

ON FARMS.

For the best cultivated farm, of not less than 50 acres, exclusive of woodland, regard being had to the quantity of produce, the manner and expense of cultivation, and the actual profits:

First Premium,	$50	Second do	$30
Third do	$20		

The persons making applications for these premiums, must submit written answers to a series of questions which will hereafter be published.

ON ESSAYS.

For the best series of Essays on the importance of scientific knowledge in prosecuting successfully the ordinary pursuits of Agriculture,	$100
For the best Agricultural Text Book for Schools,	100
For the best Text Book on Horticulture,	50
For the best essay on Subsoil Ploughing, with the results of actual experiments in the State of New York,	20
For the best essay on Draining, with details of the results of actual experiments, showing the expense and supposed increased value of the land,	10
For the best essay on Irrigation,	10
For the best essay on the Culture and Manufacture of Silk,	20
For the best essay on the prevalent Disease in Potatoes,	20

CATTLE.

CLASS I.—DURHAMS.

Best Bull, over 3 years old,	$15	Second best,	$10
Third best, Diploma.			
Best Bull, 2 years old,	$10	Second best,	Colman's Tour.
Third best, Diploma.			
Best yearling bull,	$10	Second best,	Colman's Tour.
Third best, Diploma.			
Best bull calf,	Colman's Tour.	Second best,	Diploma.
Best cow, over 3 years old,	$15	Second best,	$10
Third best, Diploma.			
Best heifer, 2 years old,	$10	Second best,	Colman's Tour.
Third best, Diploma.			
Best yearling heifer,	$10	Second best,	Colman's Tour.
Third best, Diploma.			
Best heifer calf,	Colman's Tour.	Second best,	Diploma.

CLASS II.—HEREFORDS.

Best bull, over 3 years old,	$15	Best cow,	$15
Second best,	10	Second best,	10
Best bull, between 1 and 3 years old,	10	Best heifer, between 1 and 3 years old,	10
Second best,	Diploma.	Second best,	Diploma.

CLASS III.—DEVONS.

Best bull, 3 years old,	$15	Best cow,	$15
Second best,	10	Second best,	10
Best bull, between 1 and 3 years old,	10	Best heifer, between 1 and 3 years old,	10
Second best,	Diploma.	Second best,	Diploma.

CLASS IV.—AYRSHIRES.

Best bull over 3 years old,	$15	Best cow,	$15
Second best,	10	Second best,	10
Best bull, between 1 and 3 years old,	10	Best heifer, between 1 and 3 years old,	10
Second best,	Diploma.	Second best	Diploma.

CLASS V.—CROSSES OF NATIVE AND IMPROVED.

Best cow, over 3 years old,	$15	Best heifer, 2 years old,	$15
Second best,	10	Second best,	10
Third best,	vol. Trans.	Third best,	vol. Trans.

CLASS VI.—NATIVE CATTLE.

Best cow, over 3 years old,	$15	Best heifer, 2 years old,	$15
Second best,	10	Second best,	10
Third best,	vol. Trans.	Third best,	vol. Trans.

WORKING OXEN.

Best team of 20 yoke from any one county,	$25	Best 10 yoke of oxen from any one town	$20
Second best,	15	Second best,	10
Best yoke of oxen,	15	Third best,	Colman's Tour.
Second best,	10		
Third best,	vol. Trans.		

In awarding the premiums on working oxen, the single teams will be subject to a trial on a loaded cart or wagon, under the direction of the committee; and particular reference will be had to the matching, training and docility of the animals, as well as their general appearance.

THREE YEAR OLD STEERS.

Best yoke,	$15	Second best,	$10
Third best, Diploma.			

TWO YEAR OLD STEERS.

Best yoke,	$10	Second best,	Colman's Tour
Third best, vol. Trans.			

YEARLING STEERS.

Best yoke,	$8	Second best,	Colman's Tour
Third best, vol. Trans.			

FAT CATTLE.

Best pair fat oxen,	$15	Second best,	$10
Third best, Colman's Tour.			
Best ox, cow, or heifer,	$10	Second best,	$5
Third best, vol. Trans.			

A fat ox taking a premium as one of a pair, cannot compete singly for another premium.

HORSES

Best stallion, 4 years old,	$20	Third best,	Diploma.
Second best,	10	Best gelding horse,	$10
Third best,	vol. Trans.	Second best,	vol. Trans
Fourth best,	Diploma.	Best breeding mare,	$20
Best stallion, 3 years old,	$15	Second best,	10
Second best,	10	Third best,	Diploma.
Third best,	Diploma.	Best mare, 3 years old,	$10
Best pair matched horses,	10	Second best,	vol. Trans
Second best,	2 vols. Trans.	Third best,	Diploma.

The variety of horses which possesses size, strength and endurance for field labor, combined with that action which qualifies them for the carriage or saddle—in short, the "horse of all work"—is probably the most profitable class which our farmers can now engage in rearing; and to such, therefore, will the preference of the society be given. Horses taking premiums in pairs, cannot compete singly for the premium for geldings.

SHEEP.

CLASS I.—LONG WOOLED.

Best buck,	$10	Best five ewes,	$10
Second best,	Colman's Tour.	Second best,	Colman's Tour
Third best,	Diploma.	Third best,	Diploma.
Best pen 5 lambs, $5.			

CLASS II.—MIDDLE WOOLED.

Best buck,	$10	Best five ewes,	$10
Second best,	Colman's Tour.	Second best,	Colman's Tour.
Third best,	Diploma.	Third best,	Diploma
Best pen 5 lambs, $5.			

CLASS III.—MERINOS AND THEIR GRADES.

Best buck,	$10	Best five ewes,	$10
Second best,	Colman's Tour.	Second best,	Colman's Tour.
Third best,	Diploma.	Third best,	Diploma.
Best pen 5 lambs, $5.			

CLASS IV.—SAXONS AND THEIR GRADES.

Best buck,	$10	Best five ewes,	$10
Second best,	Colman's Tour.	Second best,	Colman's Tour.
Third best,	Diploma.	Third best,	Diploma.
Best pen 5 lambs, $5.			

Class I. is designed to include the Leicesters, Lincolns, Cotswolds, and all the varieties of sheep which furnish the quality of wool suitable for combing.—Class II. includes the South-Down, Norfolk, Dorset, Native, &c.—Classes III. and IV., all those generally denominated Merinos and Saxons, whether of pure or mixed bloods.

CLASS V.—FAT SHEEP.

Best,	$10	Second best,	Colman's Tour.
Third best, vol. Trans.			

Applicants for the premiums on fat cattle and sheep, must furnish statements of the manner of feeding the animals, and the kind, quantity, and cost of the food.

SWINE.

Best boar, over 10 months,	$10	Best sow,	$10
Second best,	Colman's Tour.	Second best,	Colman's Tour
Third best,	Diploma.	Third best,	Diploma.
Best lot of pigs under 10 months, not less than 4 in No.,	Col. Tour.		
Second best, Diploma.			

In awarding premiums on hogs, reference will be had not merely to size or present condition, but to that proportion between bone and meat which promises the greatest value from the least amount of feed.

POULTRY.

For the best lot of Dorking fowls, not less than 3, one cock and two hens,	$3	For the best pair of ducks,	$3
For the best lot of black Poland, not less than 3,	3	" " " turkeys,	3
For the best lot of large fowls, not less than 3,	3	" " " geese,	3
		For the best and greatest variety of fowls, by any one individual,	10

VEGETABLES.

For 6 best stalks celery,	$2	2 best purple egg plants,	$1
3 best heads cauliflower,	2	Best half peck Lima beans,	1
3 best heads broccoli,	2	" " " Windsor "	1
12 best white table turneps,	1	Best bunch double parsley,	1
12 best carrots,	1	3 best squashes,	1
12 best table beets,	1	Largest pumpkin,	1
12 best parsneps,	1	12 best ears seed corn,	1
12 best onions,	1	Best half peck table potatoes,	2
3 best heads of cabbage,	1	Second best " "	1
12 best tomatoes,	1	Best variety seedling "	5

Discretionary premiums will be awarded on choice garden products not enumerated above.

FARM IMPLEMENTS.

Best plow,	$15	Best horse power machine,	$10
Second best,	Silver Medal.	Best cultivator,	Col. Tour.
Third best,	Diploma.	Second best,	Diploma.
Best subsoil plow,	$10	Best drill barrow,	Col. Tour.
Best farm wagon,	10	Second best,	vol. Trans.
Second best,	vol. Trans.	Best farm horse cart,	Col. Tour.
Best half doz. hand rakes,	Dip.	Best ox cart,	Colman's Tour.
Best grain cradle,	$3	Best horse rake,	Col. Tour.
Second best,	Diploma.	Second best,	vol. Trans.
Best half doz. hay forks,	Dip.	Best half doz. grass scythes,	D.
Best harrow,	Colman's Tour.	" " cradle "	Dip.
Second best,	vol. Trans.	" " dung forks	Dip.
Third best,	Diploma.	Best threshing machine,	$10
Best fanning mill,	Silver Medal.	Second best,	vol. Trans.
Second best,	vol. Trans.	Third best,	Diploma.
Third best,	Diploma.	Best straw cutter,	Silver Medal.
Best improved ox-yoke,	Col. T.	Second best,	vol. Trans.
Second best,	Diploma.	Third best,	Diploma.
Best axe,	$2	Best clover machine,	$10
Best farm harness,	10	Second best,	Diploma.
Best saddle,	5	Best hoe,	$2
Best machine for cutting cornstalks,	5	Best flax and hemp dressing machine,	$10

Articles not presenting any new and valuable improvements, will not be entitled to premiums. Implements and machines must be tested, as far as possible, in the presence of the committee.

BUTTER.

For the best lot made from five cows in 30 successive days—quality as well as quantity considered—25 lbs. of the butter to be exhibited, $25.

Second best,..........$15 | Third best..............$10

Compliance with the following rules will be strictly required of those who compete for these premiums, viz: The cows to be fed on pasture, green corn-stalk fodder, or grass cut for the purpose, only. No grain, roots, or slops of any description, to be fed during the trial, nor for 15 days preceding the trial. The cows to be owned by the competitors previous to the first day of April, 1845 The milk drawn from the cows on some one day during the trial, to be accurately weighed and measured, and the result stated. A sample of at least 25 lbs. of the butter so made to be exhibited at the Fair at Utica, for the inspection of the examining committee. The particular breed of the cows to be stated, and the method of making and preserving the butter. A certificate signed by the owners of the cows, and at least one other person who assisted in making the butter, detailing the above particulars, will be required.

The Executive Committee believe that few if any premiums offered on neat cattle will result in greater benefit to the farming interest, than those on the products of the dairy, providing fixed rules, requiring uniformity of feed, be faithfully enforced. The increased list of premiums is offered with the hope it will induce extensive competition throughout the State. Let this object be accomplished, and an opinion approximating to accuracy may be formed by the public which of the several breeds of cows are the best for dairy purpose, and from those that prove the best, further improvement may be made.

Best 25 lbs. made in June,	$10	Second best,	Silver Medal.
Second best,	Colman's Tour.	Third best,	do.
Third best,	vol. Trans.	Fourth best,	do.
Best 50 lbs. made at any time,	$15	Fifth best,	do.

The claimants for premiums must state in writing the time when it was made; the number of cows kept on the farm; the mode of keeping; the treatment of the cream and milk before churning; the mode of churning, winter and summer; the method of freeing the butter from the milk; the quantity and kind of salt used; whether saltpetre or any other substance have been employed.

The butter offered for premiums must be presented in butter tubs, jars or firkins.

CHEESE.—Not less than 100 lbs.

One year old or over.

Best,	$15	Fourth best,	Silver Medal.
Second best,	Silver Medal.	Fifth do.	do.
Third do.	do.		

Less than one year old.

Best,	$15	Fourth best,	Silver Medal.
Second and Third,	Silver Med.	Fifth best,	do.

Those who present cheese for the premiums offered, must state in writing the time when it was made; the number of cows kept; whether the cheese was made from one, two, or more milkings; whether any addition is made of cream; the quantity and kind of salt used; the quantity of rennet used, and the mode of preparing it; the mode of pressure and the treatment of cheese afterwards.

MAPLE SUGAR.

Best 25 lbs	$15	Third best,	Colman's Tour.
Second best,	10	Fourth best,	Diploma.

CORNSTALK SUGAR.

For the best experiment in the manufacture of sugar from cornstalks, from one acre of northern corn cultivated for the purpose, so as to produce the greatest quantity of sugar, $25.

The process of manufacture and clarifying must be particularly stated in reference to the maple and cornstalk sugar.

SILK.

Best specimen manufact'd,	$15	Second best,	Colman's Tour.
Second best,	10	Third best,	Diploma.
Third best,	Colman's Tour.	Best half bu. cocoons, 1845,	$10
Fourth best,	vol. Trans.	Second best,	Colman's Tour.
Best pound reeled silk,	$10	Third best,	Diploma.

DOMESTIC MANUFACTURES.

Best woollen blankets, $5—Second best, 4—Third, 3.

Best ten yards flannel, $5—Second, 4—Third, 3.

Best 10 yards woollen cloth, $5—Second, 4—Third, 3.

Best woollen carpet, $5—Second, 4—Third, 2.

Best tow cloth, 15 yards, $5—Second, diploma.

Best 10 yards linen, $5—Second, 4,—Third, 3.

Best 10 yards linen diaper, $5—Second, 4—Third, 3.

Best hearth rug, $5—Second, 4—Third, 3—Fourth, 2—Fifth, 1—Sixth, diploma.

Best 10 yards kersey, $3—Second best, 2—Third, 1.

Best rag carpet, 15 yards, $3—Second, 2—Third, 1.

Best double carpet coverlet, $4—Sec., 3—Third, 2—Fourth, 1.

Best pair woollen knit stockings, $2—Second, 1—Third, diploma.

Best wove woollen stockings, $3—Second, 1—Third, diploma.

Best cotton wove stockings, $2—Second, 1—Third, diploma.

Best lb. linen sewing thread, $2—Second, 1—Third, diploma.

Best linen woven stockings, $2 Second, 1—Third, diploma.

Best linen knit stockings, $2—Second, 1—Third, diploma.

Best knit cotton stockings, $2—Second, 1—Third, diploma.

FRUITS.

For the greatest variety of table apples, $5.

For the second greatest,.....$3 | For the third greatest,..vol. Tr.

For the best twelve sorts, not less than three of each, $3.

Best new seedling apple, $3.

For the greatest variety of seedling apple, $3.

For the second greatest,	Vol. Transactions
For the greatest variety of winter pears,	" "
For the best twelve quinces,	" "
For the best twelve peaches,	" "
For the best twenty-four plums,	" "
For the best six bunches of native grapes,	" "
For the best six bunches of foreign grapes,	" "

FLOWERS.

For the greatest variety and quantity, Gold Medal.

For the second greatest,.....$5 | For the third greatest,..vol. Tr

For the best Floral ornament. Silver Medal.

For the second best,	$3	For the best seedling Dahlia,	$3
For the third best,	vol. Trans.	For the second best,	2

For the best twenty-five varieties of Dahlias, $5.

For the second best,.........$3 | For the third best,..vol. Trans.

PLOWING MATCH.

First premium,	$15	Third premium,	$10
Second do.	12	Fourth do.	Colman's Tour.

Fifth, vol. Transactions.

For boys under 18 years of age.

First premium,............$10 | Second,......................$5

Third, vol. Transactions.

Each competitor will be required to plow one-fourth of an acre of sward land in 75 minutes, the furrows not less than 16 inches wide and 6 deep—plowman to drive his team.

FIELD CROPS.—At Winter Meeting.

Best crop of wheat not less than two acres, $15.

Second best,.................$10 | Third best,.......2 vols. Trans

Best two acres spring wheat, $15.

Second best,.................$10 | Third best,.......2 vols. Trans

Best crop of Indian corn, not less than two acres, $15.

Second best,.................$10 | Third best,.......2 vols. Trans.

Best crop of barley, not less than two acres, $10.

Second best,..................$5 | Third best,..........vol. Trans.

Best crop of rye, not less than two acres, $10.

Second best,..................$5 | Third best,..........vol. Trans

Best crop of oats, not less than two acres, $10.

Second best,..................$5 | Third best,..........vol. Trans.

Best crop of potatoes for table, not less than one acre, $10.

Second best,..................$5 | Third best,..........vol. Trans

Best crop of potatoes, quantity considered, not less than 1 acre, $10.
Second best,..................$5 | Third best,.........vol. Trans.
Best crop of sugar beets, not less than half an acre, $10.
Second best,..................$5 | Third best,.........vol. Trans.
Best crop of Mangel Wurzel, not less than half an acre, $10.
Second best,..................$5 | Third best,.........vol. Trans.
Best crop of Ruta Baga, not less than one acre, $10.
Second best,..................$5 | Third best,.........vol. Trans.
Best crop of carrots, not less than one acre, $10.
Second best,..................$5 | Third best,.........vol. Trans.
Best crop of peas, not less than one acre, $10.
Second best,..................$5 | Third best,.........vol. Trans.
Best acre of corn for fodder, $5.
Best half acre of hops,......$5 | Best half acre of tobacco,....$5
" " " flax,....... 5 | Best acre of cabbage,....... 5
Best acre of broom corn, $ 5.
Best acre of clover seed, $10.
Second best,...Colman's Tour. | Third best,.........vol. Trans.
Best acre of grass seed, $10.
Second best,...Colman's Tour. | Third best,...........Diploma.

Those who present claims to premiums for farm crops, must state in writing the following particulars:—The condition of the soil at the commencement of cultivation for the crop; the previous crop and cultivation, and quantity of manure used upon it; the quantity and kind of manure the present season; the quantity and sort of seed used; the time and manner of sowing, cleaning and harvesting the crop; the amount of the crop determined by actual weight or measurement; and the expense of cultivation. The land shall be measured by some surveyor, who shall swear to the correctness of his survey, and that it was made with a chain and compass—and the claimant of the premium, with two other persons who assisted in measuring shall certify under oath as to the quantity produced from the piece of land mentioned in the certificate of the surveyor—and a sample of grain shall be presented at the annual meeting, with the oath of the applicant that that same is a fair sample of the whole crop.

MISCELLANEOUS.

Wrought iron Gate with cast iron pillars,............$10
Best iron wheelbarrow,......................Silver Medal.
Ornamental cast iron vase on pedestal,.............. 8
Best sample drain tile,......................Silver Medal.
Best quarter of an acre ozier willow,............... 8

DISCRETIONARY PREMIUMS

Will be awarded for such implements, products, &c., not enumerated, as shall be deemed worthy of notice or encouragement.

REGULATIONS.

The premiums for Essays and Agricultural Implements, will be open to citizens of other States; all others will be confined to residents of this State, who are members of this society, or who may become so by the payment of one dollar on entering their articles.

The trial of plows will take place at Utica, on Tuesday, the 16th day of September.

No premium will be paid on any animals or articles taken away before the close of the Show.

Premiums not claimed within four months after they are awarded, will be considered as donations to the Society.

All persons who intend to exhibit Cattle, Horses, Sheep or Swine, should give notice to THEODORE S. FAXON, Utica, or LUTHER TUCKER, Recording Secretary, Albany, previous to the 10th of September, that the necessary arrangements may be made for their accommodation—and all animals must be on the ground by 9 o'clock, A. M., of the 17th September.

All those who intend to compete for the premiums on agricultural implements, butter and cheese, sugar, cocoons, silk, &c., should have their specimens on the ground on the 16th, that they may be deposited in their appropriate places and the rooms suitably arranged on the day previous to the Show.

Applicants for premiums are requested to pay particular attention to the notes attached to the premiums on Fat Cattle and Fat Sheep, Butter and Cheese, Field Crops, Maple Sugar, &c.

The statements required from those who compete for field crops, must be sent to LUTHER TUCKER, Recording Secretary, Albany, previous to the 1st of January, 1846, and the premiums will be awarded at the annual meeting of the Society, on the third Wednesday of January.

Competitors for the premiums on Essays must forward their manuscripts to the Recording Secretary, Albany, previous to the 1st of January, 1846, free of postage.

No premium will be awarded, unless, in the opinion of the judges of the class in which it is offered, the animal or article is worthy of such premium.

Prize animals and implements at the previous exhibitions, will be allowed to compete for the prizes: but they must receive a higher prize, or in a different class, to entitle them to a premium. Should the same premium heretofore given them be awarded, they will receive a certificate to that effect, instead of the prize.

Animals and other articles offered for competition, must be labelled with the names and residence of the owners at full length.

No viewing committee, with the exception of the committee on Discretionary Premiums, shall award any discretionary premium, without the previous permission of the Executive Board, expressed through the President

REVIEW OF THE MARKET.

PRICES CURRENT IN NEW YORK, MAY 24, 1845.

ASHES, Pots,	per 100 lbs.	$3 81	to	$4 00
Pearls,	do.	4 12	“	4 25
BALE ROPE,	lb.	6	“	9
BARK, Quercitron,	ton,	22 00	“	23 00
BEANS, White,	bush.	1 25	“	1 50
BEESWAX, Am. Yellow,	lb.	28	“	33
BOLT ROPE,	do.	12	“	13
BONES, ground,	bush.	40	“	50
BRISTLES, American,	lb.	25	“	65
BUTTER, Table,	do.	15	“	18
Shipping,	do.	8	“	11
CANDLES, Mould, Tallow,	do.	9	“	11
Sperm,	do.	25	“	38
Stearine,	do.	20	“	25
CHEESE,	do.	4	“	8
COAL, Anthracite,	2000 lbs.	4 50	“	5 50
CORDAGE, American,	lb.	11	“	12
COTTON,	do.	5	“	10
COTTON BAGGING, Amer. hemp,	yard,	14	“	15
American Flax,	do.	16	“	17
FEATHERS,	lb.	26	“	33
FLAX, American,	do.	6½	“	7
FLOUR, Northern and Western,	bbl.	4 50	“	4 88
Fancy,	do.	5 00	“	5 50
Southern,	do.	4 50	“	4 88
Richmond City Mills,	do.	6 50	“	7 00
Rye,	do.	3 00	“	3 25
GRAIN—Wheat, Western,	bush.	1 00	“	1 08
Southern,	do.	1 00	“	1 05
Rye,	do.	65	“	66
Corn, Northern,	do.	46	“	48
Southern,	do.	44	“	46
Barley,	do.	55	“	58
Oats, Northern,	do.	31	“	32
Southern,	do.	25	“	28
GUANO,	100 lbs	2 50	“	3 00
HAY,	do.	35	“	45
HEMP, Russia, clean,	ton,	205 00	“	210 00
American, water-rotted,	do.	105 00	“	165 00
American, dew-rotted,	do.	75 00	“	100 00
HIDES, Dry Southern,	lb.	9	“	10½
HOPS,	lb.	13	“	14
HORNS,	100.	2 00	“	3 50
LEAD,	lb.	3	“	4
Sheet and bar,	do.	4	“	4½
MEAL, Corn,	bbl.	2 38	“	2 56
Corn,	hhd.	11 50	“	12 00
MOLASSES, New Orleans,	gal.	28	“	31
MUSTARD, American,	lb.	16	“	31
NAVAL STORES—Tar,	bbl.	1 62	“	2 25
Pitch,	do	80	“	1 00
Rosin,	do.	60	“	75
Turpentine,	do.	2 75	“	3 25
Spirits Turpentine, Southern,	gal.	44	“	44
OIL, Linseed, American,	do.	73	“	75
Castor,	do.	65	“	70
Lard,	do.	55	“	70
OIL CAKE,	100 lbs.	1 00	“	—
PEAS, Field,	bush.	1 25	“	1 50
PLASTER OF PARIS,	ton,	2 75	“	3 00
Ground, in bbls.,	of 350 lbs.	1 12	“	1 25
PROVISIONS—Beef, Mess,	bbl.	8 00	“	10 00
Prime,	do.	5 50	“	6 50
Smoked,	lb.	6	“	8
Rounds, in pickle,	do.	4	“	6
Pork, Mess,	bbl.	12 00	“	13 50
Prime,	do.	9 00	“	10 25
Lard,	lb.	7½	“	8½
Bacon sides, Smoked,	do.	3	“	4
In pickle,	do.	3	“	4
Hams, Smoked,	do.	6	“	10
Pickled,	do.	4	“	7
Shoulders, Smoked,	do.	5	“	6½
Pickled,	do.	4½	“	5
RICE,	100 lbs.	3 12	“	3 81
SALT,	sack,	1 35	“	1 45
Common,	bush.	20	“	30
SEEDS—Clover,	lb.	6	“	7
Timothy,	7 bush.	10 00	“	12 00
Flax, rough,	do.	8 50	“	9 00
clean,	do.	11 00	“	12 00
SODA, Ash, cont'g 80 per cent. soda,	lb.	3	“	3
Sulphate Soda, ground,	do.	1	“	—
SUGAR, New Orleans,	do.	5	“	8
SUMAC, American,	ton,	25 00	“	27 50
TALLOW,	lb.	6½	“	7½
TOBACCO	do.	2	“	6
WHISKEY, American,	gal.	21	“	22
WOOL, Saxony,	lb.	45	“	60
Merino,	do.	35	“	45
Half-blood,	do.	30	“	35
Common,	do.	25		30

NEW YORK CATTLE MARKET—May 26.

At Market, 1000 Beef Cattle (650 from the South), 100 Cows and Calves, and 800 Sheep and Lambs.

PRICES.—We observe no new feature in the market this week. The number at market was not quite so large as that of the preceding week, nor were the sales so extensive. Prices remain stationary. We quote $5 *a* $7 as the extremes of the market. About 200 remain unsold.

COWS AND CALVES.—Prices range, as in quality, from $17 *a* $25 to $30. All sold.

SHEEP AND LAMBS.—Sheep $1.50a$2.50 to $4.25, which is a decline of 25 cents on the prices of last week. Lambs—$1.50a $3.25. All sold.

HAY—Sales principally at at 50a56c.

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REMARKS.—*Ashes* in fair demand. *Cotton* without change of price and brisk of sale. Export from the United States since 1st September last, 1,648,687 bales; same time, last year, 1,188,846; same time year before, 1,737,074. *Flour* and *Grain* dull. *Hay* the same. *Molasses* an upward tendency. *Provisions* inactive. *Rice* quiet. *Sugar* dull. *Tobacco* in fair request.

Money is plenty at from 5 to 7 per cent.

Stocks are in good request.

The Weather was exceedingly dry through April and up to the 15th May, since which plenty of rain has fallen, and though the crops are late they are now looking well. Fruit will not be as abundant as last year, in consequence of heavy late frosts. Some other crops have suffered partally from the same cause.

TO CORRESPONDENTS.—W., H. C. Sanford, E. P., John P. Norton and J. will appear next month.

To a Subscriber. The person in question has been so much badgered lately that we are doubtful how he would receive your inquiries. On reflection, we think, if you are particularly in earnest, it would be best to address him privately at his own residence.

FARMS FOR SALE.

The Farm in West Groton, known as 60 acres in the North East corner of Lot No. 63 Locke, consisting of a Farm House nearly new, Barn, and about Forty acres of improvement surrounded by a good fence, and now occupied by Robert Armstrong. Price, $1,500. One Thousand Dollars can remain on Mortgage for Ten years, at legal interest, half yearly.

ALSO,

The Farm known as the State 100 acres in the South East corner of Lot No. 2, Cicero, about a mile from the town of Brewerton, on the outlet of Oneida Lake, consisting of an improvement of 40 acres fenced, with log buildings, and 60 acres of Woodlands.

ALSO,

The Farm known as the State 100 acres in the South East corner of Lot No. 54 Hannibal, a short distance from the town of Fulton, on the Oswego River, good woodland, with a small clearing.

ALSO,

The Wood Lot known as the State 100 acres in the South East corner of Lot No. 5 Manlius, a few miles from Syracuse, and in a good neighborhood.

ALSO,

Wood lot known as the	S.	100 acrs.	in the	S. E. c.	of	Lot No.	7	Solon.
"	"	"	"	"	"	"	19	"
"	Survey	50 acres	"	"	"	"	25	"
"	"	50	"	"	"	"	29	"
"	"	50	"	N. W.	"	"	36	"
"	"	50	"	N. E.	"	"	39	"
"	"	50	"	S. E.	"	"	58	"
"	Sub. 1	83	"		"	of lot	76	"
"	" 7	30	"		"	"	"	"
"	Survey	50	"	N. W. cor. of		"	98	"
"	State	100	"	S. E.	"of	"	65	Virgil
"	Survey	50	"	N. E.	"	"	68	"
"	"	50	"	N. W.	"	"	69	

Apply to JAS. L. BRINCKERHOFF,
No. 32 Laight Street, city of N.Y.
f1 6t

BOMMER'S METHOD OF MAKING MANURE.

One hundred agents are wanted immediately, to promote the general introduction of this valuable invention for the manufacture of Manure in New York, New Jersey, Virginia, Delaware, and in the six New England States. Unquestionable testimonials and responsible securities will be required for the faithful discharge of the duties of the appointment. Persons of suitable qualifications will find this both a useful and lucrative employment. Applications, if by mail, must be post paid, and directed to me at Westville, New Haven county, Connecticut.

Hundreds of testimonials from the best authorities, evince that no farmer who is sensible of the want of Manure, should remain destitute of this cheap and expeditious mode of its procurement. Any person forwarding five dollars, to the General Agents, with information of the writer's name, residence and address, shall be furnished with a copy of the method, with the right to use the same, without charge of postage.

ELI BARNETT, General Agent.
Westville, Conn., March 1, 1845.

CENTRAL AFRICAN GUANO,

The best sample in Market, and fresh from the Island of Ichaboe.

This cargo was among the first taken from Ichaboe, and was chosen from the best on the Island, and having been brought home in tight, iron-bound casks, instead of the usual manner of transportation in bulk, its fertilizing salts were better preserved than they otherwise could be. The following is an analysis of an average sample of it, by Dr. Chilton, the most eminent analytic chemist in this city. He pronounces it to contain more phosphate of lime, and less water, than any other sample of African Guano submitted to his inspection.

Phosphate of Lime,	38·00
Phosphate of Ammonia, Carbonate of do. Urate of do. Oxalate of do.	22·94
Sulphate of Potass, &c. Chlorides of Sodium, &c.	4·17
Silica,	·58
Water,	18·65
Undetermined organic matter, containing Nitrogen,	15·26
Loss, &c.,	·40
	100·00

Price, $40 per ton, of 2,000 lbs., or $2.50 per 100 lbs., in bags.
Apply to E. D. HURLBUT & Co., 84 South street, or to
1t* A. B. ALLEN, 205 Broadway, N. Y.

GUANO, JUST RECEIVED FROM ICHABOE.

THE cargo of ship Shakspeare, from Ichaboe, of very superior quality, landing at the Atlantic Dock, Brooklyn. It has been well ascertained, that this Guano is superior to any other, as it brings forward crops earlier, and is equally lasting. For general farming, it will increase the crops from **30** to **50** per cent.; and for market purposes, it will enhance its value at least **200**, and in some instances **400** per cent. 300 lbs. is sufficient for an acre. For sale in lots to suit purchasers, with books directing how to use it, by E. K. COLLINS & CO.
April 12th, 1845. 56 South street, N. Y.

—

E. K. & Co. have also for sale the best authenticated works on Guano, proving beyond doubt that it enhances the value of all crops 30 to 75 per cent. beyond its cost, and market gardening much more, bringing forward vegetables from two to four weeks earlier. Three hundred weight is the full average quantity used per acre. It is said also to be a preventive against rust, mildew, and the fly in wheat, and rot in potatoes.

☞ The work on Guano is now ready for delivery. m1

EXOTIC, NURSERY, AND HORTICULTURAL GARDENS,

Flushing, L. I., near New York.

The subscribers having established a Nursery with the above title, with the determination of conducting it in the very *best* manner in all its departments, offer for sale, *at reasonable prices*, a *select* variety of

FRUIT AND ORNAMENTAL TREES,

Hardy Shrubs, Herbaceous Plants, Grape Vines of all the best kinds, superior Strawberries, Fastolff Raspberry, Gooseberries, &c

BULBS AND TUBERS, SUPERB CARNATIONS, DAHLIAS, &c.

AND A MOST EXTENSIVE AND CHOICE COLLECTION OF

GREEN-HOUSE AND STOVE PLANTS,

Embracing everything *new* and *beautiful* in that department, personally selected in Europe during the past summer, of

ROSES AND CAMELLIAS.

We have a very choice collection of the former, full 1,000 varieties, and of the latter nearly 300, all in fine order.

Catalogues of the above will be sent gratis to all applicants. *post paid*, and every order promptly executed. From unknown correspondents, a remittance, draft, or satisfactory reference expected. VALK & CO.

☞ Such papers as we send the above advertisement to marked, will please give it three insertions, and send bill to this office.
a1 3t

HARROWS AND CULTIVATORS.

A good assortment of the Improved Geddes Harrows can be had from $12 to $15. Also, Cultivators, from $4.50 to $6.50.
A. B. ALLEN, 205 Broadway.

AGENCY FOR THE AMERICAN AGRICULTURIST

Mr. Alonzo Sherman, of Trumbull, Fairfield County, Connecticut, is hereby appointed General Agent of the American Agriculturist, with authority to appoint Sub-Agents in any part of the United States; and we hereby recommend him to the attention of our friends wherever he may go, and hope they will extend such aid and assistance to him, as will forward the object in which he is engaged.

SAXTON & MILES, 205 Broadway, N. Y

TO LAWYERS, MERCHANTS, MECHANICS, FARMERS, PUBLIC OFFICERS, &c.

AMERICAN GOVERNMENTAL AGENCY, WASHINGTON.

On retiring from his official station as Assistant Post Master General, JOHN S. SKINNER devotes himself to the transaction of GENERAL AGENCY BUSINESS, particularly in connection with the various Departments of the National Government—business in which he is henceforth associated with HENRY O'REILLY, of the State of New-York.

Persons in any part of the United States, who have business to transact with either Department of the General Government at Washington, or with any of the State Governments, or who require researches to be made in the Public Records anywhere in the Union, can have their requests promptly attended to, by addressing the undersigned.

Extensive acquaintance throughout the Union, consequent on the long-continued connection of both the undersigned with the Newspaper Press, with the Post Office, and other Public Organisations, will greatly facilitate the prosecution of inquiries and transaction of business through their Agency.

Lawyers, Public Officers, Contractors, and others having business arising under contracts, or under the Pension, Post Office, or Patent Laws—MERCHANTS desiring remission of duties, &c.—MECHANICS or Inventors requiring Patents—and FARMERS having business with the General Land Office—may find this Agency conducive to their interest in the way of promptness and economy. Claims under treaties with the Indian Nations or Foreign Governments also attended to.

Special attention will be paid to those who wish to buy or sell LANDS in Virginia and other Southern States; and inquirers from the North or South are respectfully referred to our Circular concerning "Agricultural Improvement in the Southern States," lately published in the Globe, Intelligencer, and other Journals.

☞ Letters must be *post-free* to insure attention; and may be addressed to the subscribers, either at Albany, New-York, or *Washington*—particularly at the latter place.

JOHN S. SKINNER.
HENRY O'REILLY.

☞ Sensible of the manifold courtesies with which he has been honored by editors of all parties, from the time when he established the first Agricultural Journal in America more than a quarter of a century ago, JOHN S. SKINNER adds this note for the purpose of saying that it will afford him great pleasure to maintain the intercourse thus long continued, and to reciprocate the services of editorial friends who may now favor him with a few insertions of this notice.

May 1, 1845.

ENGLISH WORKS ON AGRICULTURE, GARDENING, AND BOTANY.

Recently Imported by D. APPLETON & Co., 200 *Broadway*.

CARPENTER, Dr. Vegetable Physiology and Botany, including the Structure and Organs of Plants, &c. 8vo., illustrated.	$3 25
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It is sometimes the practice at sales of this kind, where the interest involved is considerable, for the proprietor to protect himself by bye bidders, or some other kind of management, or for the owner to stop the sale if offers do not come up to his expectations or the requirements of his interest. Such practices have a tendency to lessen the interest in public sales of this character, especially with those who cannot attend without considerable personal inconvenience. But in this case, assurances are given that no disappointment shall arise to the company from either of the causes mentioned, and a good degree of confidence is felt that there will be no dissatisfaction from the character of the cattle themselves. They shall all be submitted to the company, and sold at such prices as they choose to give, without any covert machinery, effort, or understanding with any person; reserving to myself only the privilege of bidding openly on three or four animals, which shall first be designated. This reservation is made that I may not get entirely out of the stock of some particular families which I highly esteem, and that could not probably be replaced.

A full catalogue was inserted in the May number of the American Agriculturist.

The sale will take place at Mount Hope, one mile south of the city of Albany, on Wednesday, the 25th day of June next, at 10 o'clock, A. M.

E. P. PRENTICE.

Mount Hope, near Albany, March 15, 1845.

☞ As the subscriber intends being present at the above sale, he respectfully tenders his services to such of his friends as wish to purchase from this herd, and who may find it inconvenient to attend personally to bid. Any instructions they please to give him as to choice of animals and prices at which to purchase, they may depend upon being faithfully executed. Mr. Prentice is a gentleman of honor and integrity, and whatever is stated above about his entire herd being sold strictly as advertised, the public may depend upon will be done.

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THREE very superior Durham Bulls, from one to two years old, are offered for sale, or exchange for other stock. They were bred in this vicinity, and are of the best Herd Book pedigrees. Apply post paid to A. B. ALLEN, New-York.

IMPORTANT SALE OF FIRST-CLASS SHORT-HORNS.

MR. WETHERELL will sell by auction, without reserve, at WISETON, near BAWTRY, NOTTINGHAMSHIRE, on SATURDAY, the 13th day of SEPTEMBER next, about FIFTY COWS and HEIFERS, and about EIGHT BULLS and BULL CALVES (including the Bull Wizard), the property of the Right Hon. Earl Spencer.

This sale presents to breeders of first-class Short-Horns of the purest blood an opportunity not to be lost; and, for the satisfaction of purchasers that a fair average of the herd will be selected for sale, Mr. Wetherell takes this opportunity of giving a copy of a letter he has received from his lordship in answer to his inquiries as to the animals for sale:—

"Wiseton, February 17, 1845.

"Sir,—You ask me what is the sort of sale I intend to have. I had long endeavored to raise the number of my breeding cows and heifers to 100. I succeeded in this about three years ago; but I find, from the experience I have had since, that my farm here is not equal to carry so many. Even, indeed, if it was, I should be very much overstocked, as by next September I shall probably have 132 cows and heifers old enough to breed from, and between 60 and 70 younger heifers. I intend, therefore, to offer about 50 cows and heifers, and some bulls, to be sold by auction, on the 13th of September. I intend that those offered should be a fair sample of my herd—some as good as any I keep for myself—and I shall also keep several for myself not so good as the worst I offer for sale. They will not all have long pedigrees, but as large a proportion of them will as there ever has been in my general herd. In short, my endeavor will be, as I have said, to make those offered for sale a fair average sample of the whole number I now have.

"I am, sir, yours, &c., SPENCER."

Catalogues, with every information, will be ready by the early part of July, and may be had gratis, on application to Mr. Hall, Wiseton, or to Mr. Wetherell, Durham.

Durham, England, 20th February, 1845.

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For sale, a superior article of African Guano, just received from the island of Ichaboe. Price, $40 per ton of 2,000 lbs., or $2.50 per 100 lbs. This Guano has been analyzed by Mr. J. E. Teschemacher, of Boston, and the same can be seen at our office. ASHBEY POOL & CO.,
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EXTENSIVE AND IMPORTANT SALE OF FIRST RATE SHORT-HORNED CATTLE.

MR. WETHERELL will sell by auction, without reserve, at WALKERINGHAM, near BAWTRY, NOTTINGHAMSHIRE, on MONDAY, the 15th of SEPTEMBER next, the entire HERD of SHORT-HORNS, the property of Mr. Henry Watson, consisting of upwards of 69 Cows, Heifers, and Bulls, of different ages, including the well known bull Lord Adolphus Fairfax, and many of his progeny.

Durham, England, Feb. 20, 1845.

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For sale, a few bags of a very choice article of Peruvian Guano, direct from the island of Chincha. Price $3 per 100 lbs. A. B. ALLEN, 205 Broadway, N. Y;

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Published Monthly, each number containing 32 pages, royal octavo.

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VERY IMPORTANT SALE OF FIRST CLASS SHORT-HORNED CATTLE.

MR. WETHERELL will sell by auction, without reserve, at GATE BURTON, NEAR GAINSBOROUGH, LINCOLNSHIRE, on FRIDAY, the 12th of SEPTEMBER, the entire HERD of SHORT-HORNED CATTLE, the property of Wm. Hutton, Esq.; consisting of upwards of 60 Bulls, Cows, and Heifers, of different ages, which are principally descended from the following first-class Bulls, viz.:—Sir Henry (1446), Cossack (1880), Rockingham (2550), Ganthorpe [illegible]49), Gracchus (3917), and Lictor (6128.)

Durham, England, Feb. 25, 1845.

HONEY BEES AND HIVES,

E. Townley, 124 Canal street, has the pleasure to inform the public that he has manufactured an entirely new and elegant Bee Hive, which has been awarded the first premium for several successive years, and has been found, by numbers who have them now in operation, to be the most effectual preventive against the Bee Moth of any now in use.

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Having been appointed Agent of the Portchester establishment, the subscriber will be ready at all times to supply orders for Bone Dust. It is ground entirely from fresh unbleached materials, and is of a superior quality.

A. B. ALLEN, 205 Broadway, N. Y.

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AMERICAN AGRICULTURIST.

Agriculture is the most healthful, the most useful, and the most noble employment of man.—WASHINGTON.

VOL. IV. NEW YORK, JULY, 1845. NO. VII.

A. B ALLEN, Editor. SAXTON & MILES, Publishers, 205 Broadway.

SUBSTITUTES FOR A SHORT HAY CROP.

IT is indisputable, that the long and almost unexampled drought throughout all save the most northern part of the United States, has cut short the crop of hay. Clover is hardly half as heavy as it was last year, and timothy and red top have suffered more or less. Many fields are represented as not worth mowing. Now a hard winter and late spring may possibly follow; and if they should, there will be a great want of fodder to carry stock through them, and much suffering must necessarily ensue, unless substitutes are provided for at once by the prudent husbandman.

For this we know nothing equal to oats and corn. There is plenty of time for these to mature sufficiently for fodder, if sown immediately on good ground well plowed and harrowed. We should select the earliest varieties of corn, and sow it in drills six inches apart, in preference to broadcast, as it grows better and faster, and ripens soonest in drills. Both the oats and corn should be steeped three days previous to sowing, in water nearly blood warm, with saltpetre dissolved in it, at the rate of an ounce to a gallon; then rolled in ashes or plaster, and immediately sown and well covered. This will accelerate their coming up, and add much to the rapidity of growth. If guano, at the rate of 300 lbs. per acre, made into a compost of one part to twenty of rich fine soil, or any other fertilizing material, could be given for a top-dressing, it would add to the early maturing and burthen of the crop.

Nothing is superior for horse feed to oats cut when the berry is in the milk, and then chopped up with a broad axe, or in a straw cutter. We have sown oats as late as the 15th July, and got good crops for this purpose. They may be mown with the scythe, and cured and stacked like hay. Caution should be used in drying them well before stacking, and as they are put away it is a good thing to scatter 4 to 6 quarts of fine salt per ton, on the straw. If cradled and bound in sheaves, these should be made small, otherwise, owing to the lateness of the season, there is great liability to mould and mow burning. The corn may be left till frost comes, in hopes of getting young ears It must then be cut up close to the ground, and bound in small shocks, and a few of these only set up together and as openly as possible, so as to let the air circulate freely through them. The stalks must be well dried before stacking, and 4 to 8 quarts of salt per ton to these would not be amiss when housed We say nothing about buckwheat, as it is a grain so commonly sown at this season it is not necessary to mention it. Its straw is as valuable for fodder as that of the oat, being rated at 195 to 100 in comparison with good hay. For an excellent article on this, see Vol. ii., page 193.

Millet is an excellent crop sown broadcast like oats. Its straw for fodder in comparison with good hay is as 250 to 100; oat straw is as 195 to 100.

Turnips may be cultivated as a substitute for hay. It is too late to sow any other than the common white field variety. Ashes is the best manure for these, and plaster at the rate of two to three bushels per acre will have a partial effect if the season be tolerably moist, otherwise very little. A top-dressing of rich vegetable earth, guano compost, and well rotted stable manure, is good; sowing, however, in a newly cleared piece of ground, with sheep folded on it a week or two previously, is the best preparation that can be devised for a turnip crop. They ought to be fed out early in the season, otherwise they become pithy and are nearly valueless; besides, it is difficult to keep them during severe weather, and being of a cold watery nature, they are not near so beneficial in our frosty winters as in England, where the weather is so much milder.

WHY DOES NOT HAY CAUSE THE PRODUCTION OF MORE MILK?

THE above is a highly important query for the farmer, and a true solution of it would be of immense value to him. The great advantages of soiling cattle is in the mouth of every one who has tried it; yet one of its greatest claimed merits is the additional quantity of fodder a given quantity of land will yield in food, which is cut and carried from the land for consumption, instead of being fed off where it grows. The cropping of the grass before it is properly matured; the injury done to the stalks and leaves by the hoofs of the cattle; and the offensive state in which much of it frequently is from their droppings, and its trampled and soiled condition, are important items which go to make up the estimate in favor of the soiling system. The important query then arises, why should not the hay which has been cut at the most proper time, well secured, and properly fed, produce as great a quantity of milk, as the grass would have done from which the hay is made? Or is there a fallacy on this subject, and cannot cows be made to take or digest as much nourishment in the form of hay, as in its fresh or green state? That grass should lose any of its nutritive qualities in drying, is contrary to philosophy and experience, so far as it has been accurately noted; for Daubenton, a half century since, ascertained from actual experience, that a sheep would eat 8 lbs. of fresh cut grass in 24 hours, and 2 lbs. of hay in the same time; and that the grass lost just three-fourths of its weight in drying, so that the quantity of nourishment was equal in both conditions of the fodder. It is the result of our own observation, that on similar clay land, well put down to grass, and in moderate condition, two acres of pasture will sustain a cow 7 months in the year, and one acre of meadow will keep her through the winter, or 5 months, the average time of foddering in latitude about 42° 45′ in Western New York. But in summer, the cow is yielding milk in large quantities; in the winter, scarcely any. On every physiological principle, other things being equal, the cow ought to consume, and probably does, a larger quantity of food to produce the same results, in consequence of the increased demands for the carbon and hydrogen of the food in respiration, which is necessary to sustain the vital heat. Yet in summer, the cow takes much more exercise when driven to and from pasture, and in her rambles over it, than when confined in the yard or stall in winter, and this may be a full equivalent for the former.

May not the solution of this matter rest, in part, in the probable fact, that the stomach digests the grass much more readily, and in larger quantities, and at much less expense of the vital powers, than it does the hay; and that it can thus assimilate a larger amount of nutritive matter from grass in its green, than in its dry state? Daubenton's experiment halted at this point. He found his sheep ate the same quantity in each condition of the grass; but he did not ascertain whether the sheep were making as much wool and flesh, or the ewes giving as much milk in their food in its cured as in its fresh state; nor are we aware of any satisfactory experiment which does. It has been recently ascertained, that as grasses mature and dry, a certain proportion of the leaves and stalks, which in their green state are highly nutritious, are converted into woody fibre, which in the stomachs of most ruminating animals is generally indigestible, and passes off unappropriated by the system, with the fœces. May not this circumstance have something to do with explaining this question?

Would not the cutting and steaming of hay do much to reduce the hay as nearly to its original state as grass as possible, though it would still leave it with the probably irremediable objection, of the conversion of a portion of its formerly nutritious qualities into woody fibre? In the absence of an agricultural establishment, under strictly scientific management, with an experimental farm attached, where this with numerous other problems could be solved to the great advancement of practical husbandry, some of our leading agriculturists, who are in possession of ample means, and zeal, and accuracy of observation, fully adequate to the object, might resolve some of our doubts on this subject. A capacious bin or vat, steam tight, capable of holding a ton of hay, easy of access and delivering of its contents, with an economical system of heating it, is all that would be necessary to prepare the hay. Bran or meal scattered through the hay and subject to the same treatment would add much to its value.

To give this experiment its full value, a comparison, accurately noted, should be made, of hay fed in its dry, uncut state; fed dry and cut; steamed uncut; cut and steamed; steamed with bran or meal; each trial to be made with a distinct class or classes of cows, for several weeks in succession, and each class to go through all the various forms of feeding: and the results in quantity and quality of milk to be given, under each system of feeding; and the prices of food and its quality, and cost of preparing. Whoever of our enterprising and wealthy agriculturists will give to the public the above results under circumstances to command implicit confidence, will, in the somewhat sarcastic phrase of Dean Swift, confer a greater benefit on the human family, than the whole race of politicians put together.

PROPAGATION OF PLANTS AND TREES BY LEAVES.

BRADLEY, who translated Agricola's Husbandry in 1721, affirms that he could propagate nearly all kinds of trees and plants by leaves. De Candolle admits that some may be thus propagated; but says, "the greater part of leaves when separated from their parent stock are incapable of it." F. Mandirola, however, gives us the manner of propagating the citron melon tree leaf, in which he was entirely successful a century and a half ago. He says:

"I took for that purpose a sort of little flower-pot full of the best sifted earth; I planted in it some leaves of those kinds of trees, with their stalks so deep that the third part of the leaf was covered with earth; over that pot I fastened a small pitcher full of water, so as that it might drop directly down into the middle of the pot, and the hollow which was made by the falling of the drops I continually filled up with fresh earth; thus they cost me but little trouble, and they all shot up and grew very well. I pursued it with the greatest patience in the world, and found that through a too often dropping of the water, the leaves began to rot, and so wasted away of themselves by little and little, so as that at last nothing was left but the stems; but it having been observed since, that from the callous matter that came forth at the bottom, both roots and branches shot out, it appears that *all exotic leaves* may at any time be converted into trees. For this operation I make choice of the months of July, August, and November; but those who have stoves and greenhouses may perform it even in winter, and in that case they shoot the better in the spring. Those who have a mind to do it in the spring will have some success; but it is not so very sure, which ought to be chiefly ascribed to the inconstancy of that season."

Now this experiment seems a perfectly rational one on a little reflection. Growth can only be effected through a bud. This is formed not from the hard, woody fibre, but from the soft, cellular tissue of the plant. But this, and all future growth, must come through the action of the leaves, as these prepare and organize nutrition. The only difficulty is in the accuracy and delicacy of conducting the experiment; for the germ of existence is so feeble and minute, that the slightest variation in the process will be fatal. It is like the attempt to rear an infant of premature birth, with just enough of vitality to give evidence of its existence. The slighest excess or deficiency of appropriate nutriment will extinguish the feeble spark of life. The separation of the leaf from the stem is a great violence to nature; but if it can be kept alive a sufficient time, it must continue to obey the law of nature by organizing cellular matter, and this must go to the formation of a bud, and the tree follows of course. The advantage of using a twig with buds already formed, in which a larger amount of vitality is hoarded, is undoubtedly best where attainable. It is only for rare plants, to be extensively multiplied, that this mode of propagation can be justified.

AGRICULTURAL CHEMISTRY AND GEOLOGY.—No. I.

In a notice we gave some time since of the republication in this country of Professor Johnston's Catechism of Agricultural Chemistry and Geology for the use of Schools, we said as soon as we could find room, we should commence publishing a series of extracts from it, in hopes of rousing our readers to the study of this valuable little work, the price of which is only 18¾ cents, and it can be read through in three hours. Agricultural science is now placed within reach of every one, however limited his time and means. For fear of rendering the subject distasteful, we shall make up the extracts in homœopathic doses.

Q. What is agriculture?

A. Agriculture is the art of cultivating the soil.

Q. What is the object of the farmer in cultivating the soil?

A. The object of the farmer in cultivating the soil is, to raise the largest crops at the smallest cost, and with the least injury to the land.

Q. What ought the farmer especially to know, in order that he may attain this object?

A. The farmer ought especially to know the nature of the crops he raises, of the land on which they grow, and of the manures which he applies to the land.

Q. What is potash?

A. The common potash of the shops is a white powder, which has a peculiar taste called an *alkaline* taste, and which becomes moist, and at last runs to a liquid when exposed for a length of time to the air. It is obtained by washing wood ashes (the ashes left by wood when it is burned) with water, and afterwards boiling the liquid to dryness.

> The teacher will here allow his pupils to taste the potash, that they may become familiar with the meaning of the word alkaline as applied to taste.

Q. What is soda?

A. The common soda of the shops is a glassy or *crystallized* substance, which has also an alkaline taste, but which, unlike potash, becomes dry and powdery by being exposed to the air. It is manufactured from sea salt.

> The teacher will show a crystal of the common soda of the shops, and explain the meaning of the word *crystallized.*

Q. What is lime?

A. Lime or *quick*-lime is a white earthy substance, which is obtained by burning common limestone in the lime-kiln. It has a slightly burning taste, and becomes hot and *slakes* when water is poured upon it.

> The teacher will exhibit a piece of quicklime, will allow his pupils to taste it, and will pour water upon it, that it may fall to powder. They will thus become familiar with the word *slake.*

Q. What is magnesia?

A. Magnesia is the white powder sold in the shops under the name of *calcined* magnesia. It has scarcely any taste, and is extracted from sea water and from some kinds of limestone rock called *Magnesian* limestones.

Southdown Sheep.—Mr. Frederick Easton, of Mount Morris, Livingston Co., N. Y., returned from England last month in the ship Victoria, Capt. Morgan. He brought with him six Southdown rams. They are very fine sheep, now two years old, and characterized by their fine forms; long thick fleeces, well adapted to resist the weather; good size and fineness of bone; with great stamina of constitution. Their wool is longer, softer, less wiry, and possesses more yolk and combing quality than *most* of the Southdowns imported into the United States. Their present fleeces would probably reach 9 to 11 lbs. These will fall off in weight some in this country, but will undoubtedly remain as high as 8 lbs. on an average. These sheep were bred in Dorsetshire by Mr. John Shitler, and came originally from the flocks of Mr. Hinman of the same shire. Mr. Easton has taken them to the valley of the Genesee to breed to a large flock of sheep. This would be a good move, in case mutton were valuable. Our view would be to breed sheep for their wool and not for the carcass. Yet Mr. Easton will be a benefactor by giving the means of breeding better mutton, and some day this will be of great importance in this country.

Mr. Easton also brought over two shepherd dogs, the one a dark grizzly-colored shaggy terrier-like *collie* dog pup, and the other a beautiful small-sized *tailless* slut, of a dark brown color, with tan muzzle, legs, and flanks.

How Plants Receive their Carbon.—Carbonic acid gas is taken up by plants in two ways. The leaves, and indeed, all the green parts, absorb it directly from the atmosphere; and it is absorbed also by the roots dissolved in the rain and dew which have refreshed the ground.

DORKING FOWLS.

Since spring opened, we have received so many letters of inquiry about Dorking fowls, that we have concluded to give what follows as a general answer to them.

At our special request, Captain Morgan, of the London packet ship Victoria, made an importation of a dozen of these superb fowls last October, for distribution among some of our friends. Only five, a cock and four hens, survived out of the twelve. These were large and fine, and evidently highly and carefully bred. Being so few on arrival, Capt. Morgan very kindly sent the whole lot to Mr. L. F. Allen, of Black Rock, to cross with the produce of those we brought home from England in 1841.

As Dorking fowls are likely to be in vogue now, we think it advisable to caution all those who wish to possess good ones, to be very careful what they buy. Choice birds are extremely difficult to be had, as we found to our cost when in England, and it was only by special favor we procured some at last. Capt. Morgan has been upward of two years endeavoring to obtain this importation, and finally succeeded only through a worthy clergyman, Mr. Courtney, of the town of Dorking, a passenger with him on a recent voyage home from the United States. He accompanied them by a note, apologising for the high price he had to pay, and further saying: "The chicken breeders of Dorking have adopted a sort of *principle*, that they will send away no birds *alive*, except capons, as they desire to retain them as much as possible amongst themselves, in which, by caponizing, they carry on quite a profitable trade, and they can only be had by particular favor. They have very much *improved* them of late years. The old *white* sort is altogether bred out, and the speckled and grey varieties are now all the rage. They are also larger and better formed than they formerly were, and altogether are perhaps the best barn door fowls in existence, at least these people so esteem them."

To the above we will add, that there are plenty of Dorkings for sale in the London market, of an inferior and cross breed, some of which have been recently imported to supply the American demand. Every *five-toed* chicken is also picked up now in this vicinity and sold for a Dorking, though it may be the most common dunghill that walks. Perhaps one out of seven to ten of the pure breed have only *four* toes, so that to show *five* toes is by no means an evidence of *purity of blood*. We hope this observation will be remembered to prevent imposition.

It is difficult to describe the Dorking fowl, or, indeed, any animal, so exact as to prevent imposition, although a good one will be recognized at once by those familiar with the breed. The prominent points are a fine head with brilliant eyes, and single or double combs, in both sexes; a graceful neck, rather short than long; wide, deep, projecting breast; great length of body, which is round rather than flat or square; and fine short legs, when we consider their large size. The port is usually majestic, and a pleasing, quiet air of good breeding pervades their general appearance. The colors are various, from a yellowish white to a jet black. Those, however, speckled with dark and yellow brown and white, or streaked with silver grey, are most esteemed. Cocks with dark speckled breasts and reddish burnished wings are most to our taste, though the silver grey are frequently preferred by others. They are thickly feathered, hardy, good layers, steady setters, and the best of nurses. They are very gentle birds, fond of being petted, and though far from cowardly, are not at all pugnacious. Their meat is excellent, being lean and tender. They are preferred in England to all other breeds for capons. Well fatted, they usually weigh from 7 to 10 lbs., and often go as high as 12 lbs., or more. We speak of capons only as attaining these great weights.

There is one peculiarity with the *true* Dorking chicken which we have not observed in other breeds, namely: at about six weeks to three months old, they fully develope the shape and style of the grown bird, being then remarkably heavy and compact in the body, and are thus early fit for the table; and with good feed they get very fat like a young China pig. They then, for the next month or two, stretch out in length of leg and body generally, and do not get into compact shape again till nearly grown, when they develope their deep, full breasts, and long, broad, round bodies, in that superior degree, for which they are deemed so valuable by all gourmands who are so partial to their flesh.

Just as we had written the above, we received the following letter from Capt. Morgan:

St. Katherine's Dock, London, April 14, 1845.

My Dear Sir,—Your letter requesting me to get some more Dorking fowls I have received, and assure you that it is not so easy as you may imagine; for you will recollect how difficult this is, unless they are spoken for some time in advance, and bred expressly for you, and they ought to be one year old to make the voyage. I shall write to Mr. Courtney again, who lives near Dorking, and procured those last fall for me, as he is a gentleman who takes great pleasure in the breed. He told me, and I have also ascertained the same facts myself from other quarters, that there is none to be obtained here unless of a *mongrel* breed. The real Dorking fowls that you see in London will not breed, you must therefore wait until I get them for you. They will cost about $4 each, without freight and looking after, which would be at least as much more for a small lot, but this I will do for you with pleasure for old acquaintance sake. Yours truly,

E. E. Morgan.

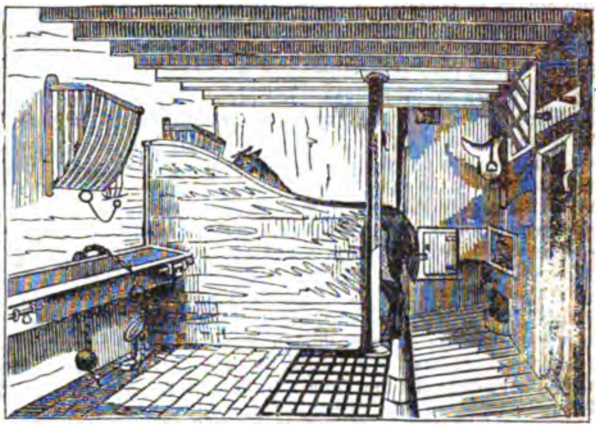
Soon after the reception of this letter, Capt. Morgan arrived here in his own ship, bringing a noble cock and five superb pullets of the Dorking breed. The pullets laid nearly the whole voyage, a thing unexampled, he says, by any other breed of fowls crossing the Atlantic with him. The pullets weigh 5¼ to 7 lbs., the cock, 8¾ lbs. When full-grown, the latter will probably weigh 10 lbs. in ordinary condition.

This may be thought rather a long story about a few chickens; but when we consider that the value of poultry in this country is about $15,000,000, and that most of it is of a poor kind, and miserably prepared for the table, the subject becomes one of considerable consequence to the farmer. Superannuated old men, and women, and children, can always take care of the poultry yard; and several of our correspondents in the Boy's Department have shown that with a good breed and proper care it is profitable raising it.

To conclude, neither Capt. Morgan of the Victoria, nor Mr. L. F. Allen, of Black Rock, wish to be troubled with applications for Dorking fowls. What they keep is entirely for their own private use. Dr. Field, of this city, and the Messrs. Carpenters, of Poughkeepsie, have been furnished with some of our own and Capt. Morgan's first importation to breed from, and now have a few young ones for sale. The price is $5 per pair, caged and delivered on board a vessel either at Poughkeepsie or this city.

STABLES. No. 2.

Our cut of this month represents a stable for two horses, and exhibits the principles on which they should be formed. The arrangement can be enlarged, and the necessary stalls added for any number of horses. Where, from the nature of the building, there cannot be a hay-loft over the stalls, this plan is as nearly perfect as can be. If there be a hay-loft over them, the hay-racks exhibited in the plan of Mr. Pell's stables at page 185 of this volume should be added. The eye, in looking over the cut, will at once see all the peculiarities. In the manger are doors to open and let out the hay seed and refuse which may collect; over the manger is a ring in the wall through which the chain of the halter passes, having a ball at the end. This allows the horse to have more or less halter stale as needed, and he cannot be cast. Underneath the manger there is room enough to stow all the *clean* litter—and there should be no *foul* or *wet* put there to ferment, and by its rising gases blind the horses. The floors are grated, to allow the urine to pass down to the gutter in the rear, and yet are level. They never should have the slightest inclination, as those which incline forward make the knees shaky and the ancles groggy, and those which incline backwards strain the cords. This levelness is imperatively necessary to allow perfect rest, and the stall that is without it is a nuisance. In the rear is a door going to the carriage room, or may serve as the entrance to the building itself; there is a window above and beyond the door, bringing the light into the stalls and on to the backs of the horses (see page 173); above the door and on each side of the window are pegs to hang saddles, &c.; at the far end is a closet; and in the corner is a fire flue and boiler, to cook food and heat water. The stalls are sufficiently long to prevent the horses kicking each other, and high enough to hinder their biting or *playing* with each other, and yet not too high to stop a free circulation of air; above it is ventilated, as shown in our cut of last month (page 173), and it is roomy in all its parts. Our cut shows less width in the gangway behind the horses than there should be. It ought to be as wide as twelve feet if that be possible, and not less than six at any rate. This leaves plenty of room to take one horse out behind the others, and entirely clear of their kicking him; it also makes the stables more airy and healthy. Those about to erect or alter stables, would do well to adopt this plan, with the hay-racks, feeder, and rollers of Mr. Pell's stable. The rack here is much too high.



Fig, 55.

PREPARATION FOR THE HARD-WORKING SEASON.

In our last number we gave an article on food for the hard-working season, and in this we propose making a few simple observations on the best method of preparing for the arduous labors of the harvest.

There is not a greater error, nor one more commonly entertained among the rural population, than this: that a person or animal which has lain still for some time, or been at light work till it has become fat, is thus made strong, and thoroughly prepared by its rest and gross accumulation of flesh for the hardest sort of work. To do a hard week's or month's work without injury, a man or domestic animal must certainly be well fed and in good flesh, or more properly, *condition*; but to have the bones well covered with *hard* muscle instead of *soft, juicy* flesh, are two very different things. The strength of man or an animal of any kind lies principally in the *muscles* (hard lean flesh); how important then that they should be in proper condition! The first requisite for this is proper food, as given in our last; the second, regular exercise. No better preparation can be had for the toils of harvesting than the farmer usually gets in the forepart of the season in plowing, planting, and hoeing. It must be recollected, however, that the *action* requisite to perform these duties is entirely different from that required for mowing, pitching, reaping, and cradling. To perform these operations a *new set* of *muscles* (hard lean flesh) are brought into action, and the great error in the beginning of harvest is, to mow or cradle too much the first day. Active, ambitious young men will very frequently commence harvesting by mowing or cradling nearly the whole of the first day; the result is, that they so thoroughly fatigue and strain the muscles which had been lying idle (and consequently got fat and lusty) during the forepart of the season, that they will be so stiff and sore the next morning that they can hardly move, and it takes a week perhaps to get over this feeling, and not unfrequently lasting injury is done to their whole system by this single day's work!

The true way is to inure oneself gradually to work, and commence by mowing or cradling, or doing any other severe work, a single hour in the afternoon, and two hours the next morning. Increase an hour each day, and at the end of a week one may mow all day long, without being particularly fatigued, and never injured. Although we utterly detest racing, trotting, and foot matches as at present conducted, or anything which borders on gambling, or is attended with cruelty to animals; yet the hard-working man would do well to learn the principles, or physiological reasons of training men and animals to do the wondrous feats they frequently perform without the slightest injury to themselves. Indeed, at the risk of being laughed at for the expression, we will say, that to be able to work hard and easily during harvest-time, one should go into *training*, and be put in *condition*, nearly the same as if preparing for a great foot match. Only think of a man running twenty miles in two hours with ease as was recently done in England. It was condition produced by training which enabled him to do this. The ancient Greeks and Romans *trained*, that is, got themselves into condition for their sports, war, and the chase; and the North American Indians, though ignorant of the physiological reasons for it, taught by experience of its great advantage, did the same. If, then, it be so advantageous in an idle, foolish, or grossly wicked cause to prepare to acquit ourselves with distinction, how much more imperative with the husbandman on whose labors depend the very existence of mankind, to do the same? But this is delicate ground, and, to our knowledge, untrodden; we therefore forbear saying more at present, only wishing that we could persuade our farmers to study animal physiology. It would enable them to improve the breed of man as well as domestic animals; save them many a disease; add to their longevity and happiness; and qualify them to do more work and with greater ease to themselves; and if we must incite by a selfish consideration, they would thereby *make more money*.

There is an art in doing work which few ever give themselves the trouble to study. Mr. John R. Pitkin, of Woodville, L. I., in the N. Y. Farmer and Mechanic, thus admirably describes that of mowing, the practice of which enabled him to easily beat the strongest and most active competitors.

" 1st. The scythe should hang naturally and easily, and, as I have said before, it must be kept in first rate order.

" 2d. As you approach the standing grass, let the heel of the scythe move to the very point of commencement, and let it stop the instant it has done its work. Thus there is nothing lost by a backward or forward swing. If the grass stands up so as to admit of moving on, measure the utmost capacity forward of your scythe, take a quick easy gait, moving your right foot well up towards the standing grass, and your body with it, though leaning back, by bending the knees a little forward, so as to bring your whole weight to bear upon the scythe, without twisting the body from right to left (as many do), thus giving ease to each clip, and ability to repeat in an advanced position, without fatigue.

" Note.—If you swing 6 inches too far back, and 6 inches too far in pointing out, it makes 24 inches *loss!* Then apply the same strength to a scientific forward motion, and you will find it difficult for ordinary mowers to keep up."

NEW YORK FARMERS' CLUB.

This excellent club continues its regular meetings at the American Institute, twice a month. At the two last, various subjects were discussed.

Peach Trees.—Among the means that appeared in certain situations to have been successfully used to prevent the destruction of peach trees, were lime, coal ashes, blacksmith's cinders, put about the trunks of trees, soot and hot water at the roots, when the earth is dug away—others had planted tansy round them, or twisted leaves of tobacco and fastened them around the bodies of the trees. In particular situations, by these means, trees continued to flourish and bear for a long course of years. Facts were stated, showing that, in other places, some of the same means were applied and utterly failed. Mr. Travers stated that coal ashes had failed altogether. The efficacy of tobacco, however, was not contradicted by any one. Mr. Hopkins, whose letter was read at the last meeting, commending this article, has addressed another to the Club, enclosing a letter from Mr. Frazer, showing that a strong decoction of tobacco applied to the roots, after the ground had been dug away, not only destroyed the worms, but proved to be a powerful fertilizer. Mr. Pike, of New Jersey, said: A sharp penknife or wire, is the best remedy I have discovered for the peach disease. The destroying grub insinuates himself under the bark of the tree. No ordinary application can reach him. Tobacco juice alone will not do. My penknife has cut out thousands of them. After I have cut them out, I apply to the bottom of the tree a compost of lime, ashes, and cow dung; I add then tobacco. My diseased trees, treated in that way, have partly recovered their health. I have set out fifty thousand trees. For my part, I am convinced that this enemy insect is bred under the bark. I have taken out the young ones, that must have been hatched there. Guano has been mentioned as a vermifuge—but how can it get at the grub? Pulverised glass might answer, perhaps, for its particles are sharp. Oil is a good application—I have tried soft soap. Look at John J. Boyd's peach trees on Staten Island; he gives them whale oil, and their health is excellent. A member stated he had witnessed the good effects of the application of hard soap to peach trees. The soap was applied in April, June, and late in the fall. An orchard treated in this manner four years, was now very healthy, not a single tree had died during that period. Dr. Underhill said: Either take the worm out of the tree first, and then apply preventives of their renewed attacks, or first apply preventives; I have examined them well. The hole made by the worm in the bark is covered by the exuding gum, so that then nothing can enter the hole to destroy him. He seals up his hole in that way. It is a small white worm with a red head. I have watched it in all its stages. In two years it spins its cocoon, fastening it to the bark near its hole. I have taken the insects out of their cocoons. But there is something more in this matter of diseased peach trees. I think that the forced growth given to young trees by our nurserymen, causes their debility and premature decay. They are forced in rich soils; they grow five or six feet in a single year; their sap is abundant; frost hurts them on that account, in hard freezing. This forcing is carried on to such an extent, that you almost make an annual of the tree—it becomes too tender—it is the prey of the insect on that account, and I do hope that our horticulturists will alter their method, and let us have a more moderate and natural growth of our nursery peach trees.

Farm Wagons—The best mode of constructing farm-wagons and carts, and harnessing for easy draft was next discussed. To widen the tires for paved or Macadamized streets, was recommended. Shepherd Knapp, Esq., presented $50 to the American Institute, to be given as a premium for the best farm-wagon at the next October fair.

Bone-dust, diluted with sulphuric acid, was recommended as a manure.

Guano on Corn.—A communication was read from Mr. Wm. B. Oldie, on the use of guano as a steep for seed corn. He soaked his seed for two days in a mixture of one pint of guano to 4 gallons of blood-warm water. It has given his corn a rapid growth, and proved the best scarecrow he had ever employed—for after the crows had one taste they never troubled the corn again.

Coal Gas Tar.—A communication was read from Mr. Roswell L. Colt, of New Jersey, relating to the application of coal gas tar to fruit trees, for the purpose of destroying worms and noxious insects.

Corn.—Several members spoke upon the subject. The general opinion expressed was, that the ground should be well manured and tilled by plowing and harrowing, and that the subsequent culture should be performed with the cultivator and hoe, so as to leave the soil and manure undisturbed, and that in harvesting corn it was decidedly best to cut the corn up at the roots instead of topping it as is sometimes practised. One gentleman disapproved of the practice of killing crows, considering them a useful bird to destroy insects and vermin on the farm. He could always keep them from his fields by extending strings across them. A member stated that a crop of corn averaging 90 bushels to the acre, was produced, where the only working of the crop was performed with the cultivator, which was passed through the field three times. The hoe was not used. It was stated that Mr. Brown, of New Hampshire, has raised 135 bushels of shelled corn to the acre. His corn is a variety of his own raising. The secretary, on motion, was requested to obtain from Mr. Brown his mode of cultivating corn.

Grafting.—Specimens of root grafting were exhibited—not only of grape vines, but also pears, &c. Subject for the next meeting—The best mode of cultivating roots for soiling purposes.

AMERICAN AGRICULTURAL ASSOCIATION.

The monthly meeting of this Association was held at the Historial Society's Rooms, on Wednesday, 4th June, Hon. Luther Bradish, President, in the chair. After the minutes of the last meeting were read, Wm. A. Seeley, Esq., proceeded to read extracts from the London Chemist, upon the subject of electricity as applied to the cultivation of grain, and then make some remarks upon the subject, which were highly interesting and important.

Communications were received from Thomas Spalding, Esq., of Georgia, L. Pratt, and J. S. Wadsworth, accepting their appointment as Counsellors of the Association. Mr. Spalding forwarded some seeds and several specimens of rare plants.

A communication was received from Mr. Albert Carl, Secretary of the Queens Co. Ag. Society, desiring to open a correspondence with the Association. A motion was made directing the Corresponding Secretary to open a correspondence with Mr. Carl.

Mr. Russel was appointed one of the committee on galvanic and electrical experiments in the place of Mr. Clark, resigned.

A report from the committee on meteorology was read by Mr. Green. Also, a memorial to the Regents of the University upon the same subject.

Mr. Jones read a communication upon the subject of rye top-dressed with guano. He presented two specimens to the Association; one had been raised where soap-stone or impure serpentine had been deposited, for the purpose of making a road, and the other some distance from it. Where the rye grew near the soap-stone, it was much more perfectly developed, which Mr. J. attributed to the fertilizing qualities of the disintegrated soap-stone.

Mr. Clark made a verbal communication upon preserving timber. An interesting discussion arose upon the subject, in which Mr. Clark, Dr. Gardner Messrs. Seeley, Jones, and Swain, took part.

A letter was received from J. B. Purroy, Esq., Consul of Venezuela, desiring an interchange of communications with the Instituto Tovar of Caraccas On motion, the Cor. Sec. was directed to open a correspondence. Mr. A. Stevens presented a specimen of wool from the back of a Southdown ram, one of six recently imported by Mr. Easton, of Mt. Morris, Livingston Co., which was of superior quality, on account of its length of staple and its softness. He also described some Cheviot sheep, China pigs, and shepherd dogs, recently imported by Mr. Carmichael, of Sing Sing, for his farm in Wisconsin.

Meeting adjourned to 1st Wednesday in July.

FARM OF DR. POOL.

Last month we had a delightful ramble among the farmers in New Jersey, passing up a part of the valley of the Hackensack—thence across to New Brunswick—thence up the Raritan to its forks, and round the South Branch to the North, and thence home. We were pleased and instructed with much that we saw, and quite the reverse with some other matters. We shall give details hereafter, confining our notes in this number to the farm of Dr. Pool.

This farm lies within a mile and a half of the flourishing town of New Brunswick, and consists of over 200 acres, part of which is broad alluvial meadows on the Raritan, of great fertility, and the other part gradually rising upland of a fair quality, technically termed *red shale*. It is a *stock* farm, and as much of it, consequently, kept in grass as possible. Everything raised here, with the exception of the wheat crop, it is intended shall be consumed on the land. This gives large quantities of manure to enrich the uplands. The meadows are more or less overflowed every spring, and a rich alluvial sediment is left, which answers as a first rate top-dressing; and notwithstanding the grass is annually carried off and consumed elsewhere, they keep up their fertility, yielding about two tons of choice hay per acre, besides a thick coat of aftermath. We are surprised that any one should think of breaking up such lands for root and grain crops, more especially at their present prices; for after being well set in grass, this gives the most profitable return on the average of years. If properly treated they will be constantly improving, as the meadows are similarly situated in England, the farmers calculating upon a whole century to bring them to perfection in that country. We know of no branch of husbandry in which we are so deficient as in that of the *cultivation* of meadow and pasture land. By *cultivation* of these we do not mean plowing, planting, and hoeing—quite the reverse; but as this subject would demand an essay of itself, we shall leave it to be treated separately hereafter.

Manures.—Lime is found to be the great renovator on *red shale* in New Jersey, as well as Pennsylvania, Maryland, and Virginia. It not only supplies this deficiency in the elements of the soil; but warms, lightens, and makes it looser, more pliable, and easier of cultivation—it being naturally somewhat cold and adhesive. However much manure the people in this district may make on their own farms, lime is considered indispensable, and is now almost universally resorted to. The canal connecting the Raritan and Delaware affords great facilities for obtaining lime. It costs 12½ cents per bushel unslaked, and 5 cents slaked, delivered on the banks of the canal. From 50 to 150 bushels are applied to the acre. It is found to act most beneficially kept as near the surface as possible; it is therefore put on after plowing, and then harrowed in with oats or barley, and the land seeded down to grass: it is also spread broadcast upon pastures and meadows. Lime is easily kept in large heaps in the open air by throwing a little water on the top, which slakes sufficiently to make a fine smooth crust over the whole. This soon dries hard, and forms a roof impervious to the rain. When the lime is to be used, the heap is broken into near its base, and whatever is wanted taken out, and another crust formed over this broken part in the same way as above. Plaster is much used, and is found beneficial on all crops; the effect, however, is most apparent on clover. It is applied at the rate of 1½ to 2 bushels per acre. It costs here 25 cents per bushel—26 bushels make a ton. Leached and unleached ashes are used to a considerable extent, costing from 10 to 13 cents per bushel. Guano has been tried some this season, and where rain has fallen immediately after the application, its benefits are already very apparent, the crops looking much greener, and are from 35 to 50 per cent. in advance of those treated with various other manures. But an increase of *grain*, *roots*, and *fruit*, and not *straw*, *stalks*, and *branches*, must be the grand test of this powerful and highly condensed manure, and it is to this point particularly we most earnestly call the attention of our farmers in the use of guano.

Rotation.—Dr. Pool applies a good coating of stable manure broadcast upon grass land; it is then broken up and planted with corn. A compost of one part plaster, mixed with two parts of unleached ashes, is then applied, at the rate of a table spoonful on each hill of corn as fast as it is dropped, and before the grain is covered. A table spoonful of plaster is added to each hill any time after the corn comes up, till it has attained a foot in height. This compost and plaster is invariably applied, let the corn be ever so highly manured otherwise, and the difference in favor of the crop thus treated, and one without the compost and plaster, has been found very apparent. These give the corn a quick start, and keep it moving till the barn-yard manure has time to decompose and form food to perfect the after growth. The crops on all cold sluggish lands should have a dose of something warm and immediately fertilizing, to give them a good start. Guano and poudrette have been found highly useful for this purpose; but when applied without other manures as well as ashes and plaster, a second dose just before the crops fruit is indispensable, they part with their fertilizing properties so rapidly. Oats or barley follow the next spring, as the second crop in the course. The latter is preferred, as the yield of barley is generally as great as the oats, and it is ordinarily worth in this market nearly twice as much per bushel. A top-dressing of lime is now added, as detailed above, and the land is seeded down with timothy and clover, or clover alone. If the former, it is suffered to remain in grass till it runs out. But we contend there need be no such thing as *running out*, if a top-dressing of vegetable compost or stable manure be added in the fall or spring, and it be not depastured too closely. If wheat is to follow the oats and barley, clover is sown. The first growth is mown the following year, and the second after growing up to seed is turned under for wheat, and thus the land seeds itself with clover. Some of the Jersey farmers, we were informed, had followed the course of an alternate clover and wheat cropping for years, with good effect, giving nothing back to the land save turning under the second growth of clover, and top-dressing every second year with lime at the rate of 50 bushels per acre. This is a severe system, and it seems incredible to us that any land can improve under it.

Fruit.—Large quantities of apples are raised here, though peaches are at present the most profitable of the fruit crops. To our surprise we found them doing remarkably well on the red shale, when elevated 50 to 100 feet above the river. We had before supposed that this sort of land was too heavy and cold for the successful growth of peaches. From 120 to 150 trees may be set out on an acre. They yield one basket (3 pecks) per tree, on an average, worth 50 cents to $1. Some years the fruit is worth $5 per tree. The trees come into pretty full bearing at six years from planting the pit; the object being not to force them in their growth, as the frost is then much more liable to kill them. They are budded the second year after planting. Strawberries and peaches are getting to be great crops in Jersey, and many are making snug little fortunes in their cultivation. Success, we say, to them, for they are among the most healthy and delicious of fruits.

Stock.—Dr. Pool was one of the first to introduce improved stock into his vicinity, and in this respect has set a highly laudable example, and been of no little benefit to that section of the country. There is scarce a prime milker now found in New Brunswick or its neighborhood, the blood of which cannot be traced to a cross with one of his Durham bulls. Maria is a most superb red and white cow, and was imported direct from England by Dr. P. In addition to her fine large form, she is a superior milker; giving in her best season from 26 to 28 quarts per day, wine measure. Fanny is quite a pretty cow, also red and white, and is a deep milker, giving 25 to 27 quarts per day. Bernard is a fine bull, with a good quarter and loin, and handles well. He was imported in Maria's belly. Carter is quite a clever fellow, after the Durham standard. He is out of Maria by Mr. Gibbon's Majestic. In addition to these, Dr. P. showed us some well-bred young things, and more or less animals with a Short-Horn cross. This, with the pure Alderney, gives the richest milk, though not so large a quantity as the Durhams alone. The milk from one pure Alderney cow yielded at the rate of a quart of the richest cream to 13 quarts of milk. Dr. P. recommends this breed for their very rich milk only; for when they are done with for this, it costs more to fat them than they are worth; whereas, a Durham cow will immediately clothe herself with good flesh, and prove as profitable to feed for the butcher, as she was, kept for the dairy. This is the great and superior merit of well-bred Durhams over any other breed, that they are equal to any at the pail, and when dried off, nothing excels them for the shambles; thus uniting the rare qualities of the butcher's and dairyman's beast. We were shown here quite a curiosity; a half-bred bull of the Chinese, or more properly speaking, probably of the Brahmin breed. He shows the buffalo hump over the shoulders in a marked degree. We have occasionally seen such as well as the pure Brahmins in England.

The horses are fine. Among them we noticed Medora, out of Lottery, by American Eclipse; and Indiana, out of Votress, by imported Expedition. Those familiar with the stud-book will see at once that she can trace back a rich and rare pedigree. We found Raritan standing to mares in Somerville. He is out of Indiana by Monmouth Eclipse, and is a fine horse, standing plump 15½ hands high if not more. He possesses substance enough for the road, and will doubtless greatly improve the stock of that part of New Jersey.

The jacks and jennies are superb, and we do not believe there is anything in the country comparable to Don Juan. We certainly did not see his equal within a long degree when in Kentucky. He is an imported jack of the pure Spanish breed, stands 15 hands high, possesses great substance, and withal, is remarkably fine in his limbs, and quite superior in all his points. Till we saw Don Juan we did not know that so good an animal of his kind existed in the United States. His stock of mules is equal to himself; many of them out of good roomy mares attaining 15½ to 16 hands, raised in the ordinary farm way, and without a particle of grain or extra keep. Mules are much used in this district. They begin at 2½ years old, at 3 are put to full work, last twice as long as horses, are kept at much less expense, and are not at all subject to their diseases. We found them used on the canal for towing boats, to the total exclusion of horses; the proprietors of the lines finding them cheaper and more enduring. Mules raised in New Jersey, and indeed everywhere at the North, are superior to the corn fed animals of the South and West, in strength and endurance, as has been often proved by working them side by side.

The pigs here are Berkshire. Sheep we saw none, but think the Southdowns and their crosses would pay well as mutton to feed off the clover, preparatory to a wheat crop We should much prefer this system to turning the clover under, as it is the best possible preparation for a wheat crop.

Dr. Pool feels a little proud of his success at the different agricultural shows with his stock. We noticed a baker's dozen of silver cups gracing the shelves of his table buffet, besides a considerable number of medals and diplomas awarded him for prizes on the same. Such a feeling is highly to be commended, and we wish more of our farmers were ambitious of obtaining such prizes.

Buildings.—The house is of massive stone, a fine old Revolutionary relic of two stories, and embowered with trees and flowering shrubbery. A well stocked formal old garden, with right angled paths edged with box, joins in the rear. Dr. P. speaks of giving it a more modern shape; but we hope he will not, as it is now in keeping with the style of the house. We begged him not to alter its form, though he is welcome to make the land as rich as he pleases, and add as many kinds of vegetables, fruits, and flowers, as it will hold. The farm buildings are commodious and extensive, and will have additions the coming year.

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ROUP IN FOWLS.—This disease is fatal for want of knowledge of the proper manner of cure. It is said to be *contagious*, but it is *epidemic*. It will arise among fowls without connection with others. It is mere *influenza*, and is to be cured by warmth. The disease arises from changes of weather from warm to cold and damp. The symptoms are, 1st, gaping; 2d, difficult breathing and noise in the throat; 3d, swollen eyes; and lastly, catarrhal discharge from the nose. Wash the nostrils with warm water and castile soap, and keep the discharged matter all clear from the nose; and let the eyes and head be bathed with warm water. A lotion of hartshorn, and spirits of wine (alcohol), in equal quantities, diluted with water, will be good to wash the head with, as it will diminish fever by increasing perspiration. Feed, whatever the fowl will eat of light food, and it will soon recover.

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TURNIPS.—Since we wrote the leading article, page 201 of this number, a favorable change has taken place in the weather, and copious rains have fallen. Nevertheless, the crop of hay, generally, south of 41°, will be very short, the rain coming too late to help it. As extremes usually follow each other, the remainder of the summer may be wet, and if so, it will be highly favorable to the growth of the improved and common field turnips. We would therefore again particularly urge growing them extensively this season, as it is not too late for a good crop. We have first-rate drills for sowing them and other seeds. Our readers will find various articles on the culture of the turnip, in our second volume, one particularly good at page 75.

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HOW TO MANAGE A STUD HORSE.—I know a stud horse in my neighborhood, which is led out of the stable by the bit, the rein passing from the right side under the jaw through the ring of the left side. The horse takes his groom at ease where he pleases, and as fast as he pleases, till he reaches the mare to be covered. I know another stud horse which was equally unmanageable till the following mode was adopted. The rein passes from the ring of the right side of the bit, up the right side of the head, and over it behind the ears, then down the left side through the ring of the left side of the bit, which gives a purchase upon the mouth that cannot be resisted; the groom thus manages him with the greatest ease. Try it. HORSEMAN.

Agriculture in Scotland.—No. 9.

Since my last, I have enjoyed a most delightful excursion into the county of Forfar, in company with Prof. Johnston. During the week of our absence, the weather was unusually settled for this climate, almost every day being mild, bright, and springlike, as heart could wish.

Dundee was our first stopping place, and on our way thither through Fife, we were much interested by the activity which prevailed among the agricultural population. Almost every farmer was taking advantage of the fine weather to sow his oats and barley, and in many instances the more forward had begun their potato planting. But there were many fields where the dark wet spots showed a want of drainage, the occupiers of which were obliged to wait for yet more sun, while their more enterprising and *wiser* neighbors, by the aid of drains, were improving to the utmost the precious hours of an unusual seed time.

At Dundee, the day after our arrival, Prof. Johnston delivered a lecture on the "Cultivation of the Soil" to a large and deeply interested audience. It was market day, and I had afterwards the pleasure of going among the intelligent farmers of the surrounding districts, and hearing their expressions of approbation, and acknowledgments of instruction

We were the guests of Sir John Ogilvy, Bart., whose seat (Baldovan House) is about three miles from the city. The situation is beautiful, and though so near Dundee, quite secluded. The largest rookery that I have yet seen surrounds the house; some of the nests are built within a few feet of the windows, and the cawing is incessant. There are probably 8,000 to 10,000 of them, and the neighboring farmers complain bitterly of their depredations. I have always been a defender of birds, and especially admire rookeries as connected with the antiquities so fascinating to us from the new world; but I was somewhat staggered when I was shown fields of turnips, where at least the half were injured by the rooks, who first learned to eat them during a severe storm, some years since, and have never lost their acquired taste. They are exceedingly destructive to potatoes also, and where there are such large rookeries as those of Baldovan, it is necessary to keep boys constantly in the field to watch them. Their advocates contend that the immense quantities of grubs, worms, and insects destroyed by them, more than counterbalances these evils. I am inclined to believe this true where their numbers are not too large, but am very doubtful in cases like the present. Sir John Ogilvy is so far convinced of the contrary, that he has this year seriously commenced thinning his rookery, by destroying the eggs and the young.

Sir John has done great good to the farmers of his neighborhood, by his enterprising but judicious treatment of one of his farms, which he took into his own hands four or five years ago, when the lease expired. The soil was wet, mossy, intractable, and naturally poor. By draining, subsoil plowing, and skilful manuring, he has more than doubled its value, and his crops bring the very highest prices. His system, and that of others near Dundee, is a rather singular one. Very little stock is kept, and everything is sold off. The turnips, potatoes, &c., are planted in such a way as to be easily divisible into small lots, which are sold separately by auction or roup, as it is here called. The seller is under obligation to deliver the crop whenever the buyer wishes. If it is grain, he thrashes, but is not often obliged to harvest it. Everything is thus carried off the land; but large returns are made in the shape of manure, from the cow-feeders, &c., in the city.

The rotation on these farms is an unusual one, and I will give Sir John Ogilvy's. 1, grass; 2, oats; 3, turnips, fully manured—about 25 tons per acre; 4, wheat, half manured—about 10 tons per acre; 5, potatoes, fully manured; 6, barley, with grass seeds, half manured. This may serve as an example of most farmers in that immediate neighborhood. Sometimes turnips are grown the fifth year, and potatoes the third. Wheat shifts in the same way with barley. Occasionally two crops of oats are taken, but in that case the last is manured. It will be observed that in this rotation every crop, excepting grass and oats, is manured. They say that their land will not do without it. Guano has now come into general use, and is found to do best at the rate of 3 cwt. per acre, with a half dunging.

As every crop, excepting wheat, and sometimes barley, is at once sold off, this method of farming brings quick returns, and does not require so large a capital as other ways; but the interest of the profession is in a great measure destroyed; they lose the pleasure to be derived from the rearing of stock and the consumption of at least a portion of their crops upon their own premises. As one of them observed, it becomes a kind of retail shopkeeping, the object being simply to raise as large a crop as possible, and sell it out in little patches to the highest bidder. After the sale comes the worst part of all, the liability of interruption in the most pressing work, by a demand from some one of these buyers to carry his turnips, potatoes, grain, or straw, into Dundee. In my next I will give some further observations on my journey in this section of Scotland. John T. Norton

Edinburgh, April 30, 1845.

WOOL RAISING IN THE UNITED STATES

The suggestions of your correspondent R., as to "the policy of American Farmers" in associating together by their representatives in a national capacity, are well worthy the consideration of the class to whom they are addressed. We need to be officially advised from time to time, by some intelligent board of agriculturists, who have the means of forming a correct opinion from authentic sources, of the ever varying wants of nations, and their present and probable future productions, by which alone, American agriculture can be shaped in time to meet the most profitable return through the agency of our commerce. In the absence of all such national agency, we must, individually, pick up such isolated facts as *happen* to present themselves, from which important inferences may be drawn for the guidance of the American farmer. Such an one is afforded in a late number of the London Farmers' Magazine, in which the progress of the colonial wool trade with the mother country of Great Britain, is given at some length. The crowded columns of the Agriculturist will admit only the briefest synopsis of this history which I subjoin.

In commencing the article, the writer says: "It is scarcely a quarter of a century when the announcement of a public sale of wools imported from a British colony was a subject of derision on the part of not a few of the German and Spanish merchants connected with the trade, in the wools of the two countries we have named, and a topic judged as chimerical by the flock-masters and manufacturers in the United Kingdom." For a long time the colonial wools were imported in a bad condition, being put up without washing or assorting, and frequently filled with burrs and other objectionable matters; and the wool from Sydney, in addition to its other bad qualities, was very deficient in strength of staple, which was charged to the great scarcity of water prevalent in New South Wales. As is the case with all new enterprises, the progress was limited, and subject to much fluctuation and many losses. Prices were for some time very low, owing to a want of character and reputation in the article, and the business in first hands was far from profitable; yet Anglo-Saxon perseverance, intelligence, and energy, steadily and rapidly overcame all obstacles, and the annual public sales now held in London, are looked to with the same respect as the sales of Chinese teas and American cotton. The details given in the article from which we quote are not generally very succinct or definite, but enough is given to show the general results which we wish to exhibit.

Progress of the Wool Trade from Australia.—Previous to 1825, a sale of 400 bales was considered a very large sale. (We may here mention, the *bale* is a very indefinite quantity, varying from something under 200 lbs., to over 260 lbs.) In 1836, however, colonial wools began to be quite popular, and there were offered, at one sale, 8,746 bales of Australian and Tasmanian wool, and the whole quantity brought into England for that year was 22,783 bales. The prices for some of the best combing qualities, were 2s. 6d to 3s. 3½d., or from 60 to 80 cents. The same year there were imported from Germany 90,450 bales, and from Spain 23,463 bales.

In 1839 there were imported into London alone from Australia 20,495 bales, of the aggregate weight of 5,414,300 lbs. The total importation into the kingdom is not given; but that for London in 1836 (the only standard of comparison afforded us) was 10,227 bales, being nearly one-half the entire importation for that year, thus making with this ratio, an importation in the whole kingdom, of over 45,000 bales for this year, from Australia. The imports of Peruvian wool for 1839, were 20,114 bales, and of Spanish, 11,318 bales.

In 1841 Australian wools were imported into London to the extent of 54,764 bales, weighing 13,145,555 lbs. In 1843 the importation of Australian was 67,160 bales, while of German, there were 9,964 bales, and of Spanish, 2,480 bales. The highest prices paid for 1844 were 2s. 3d., about 53 cents, for "hand washed;" and 2s. 2½d., for good combing cool. The result of the foregoing progression, in one branch only of colonial wool growing, on the German importation, is given above, and the consequences were such as were to have been clearly foreseen, having ended in the bankruptcy of many of the small flock-masters, and the great curtailment of the larger establishments.

Van Dieman's Land.—The first noticed importation from this island is given in 1827, when the total amounted to 192,075 lbs.; in 1829, 925,320 lbs.; in 1831, 1,359,203 lbs.; in 1836, 1,983,786 lbs.; in 1839, 3,212,698 lbs.; in 1843, 3,993,040 lbs. The prices obtained for this wool, correspond very nearly with that of the Australian above-mentioned.

The Cape of Good Hope is styled, *par eminence*, "the *father* colony of the wool trade." The first imports noted, are in 1816, and amount to only 9,623 lbs.; in 1822, 49,028 lbs. The prices at first obtained were from 10d. to 1s., or 20 to 24 cents. In 1837, the imports ran up to 468,011 lbs., and the quality had so much improved, that the best lots readily commanded 1s. 10d. to 2s. per lb. In 1841, the total import was 1,079,910 lbs.; 1843, 1,728,453 lbs.; 1844, nearly 2,000,000 lbs.

Port Phillip, a recent settlement, in the southern part of New Holland, exported no wool comparatively 8 or 10 years ago, but during 1844, sent to England 11,770 bales, some of which sold as high as 2s. 5d. per lb., or 57 cents.

The East India Company's Possessions in 1817, sent only about 1,000 lbs. wool to the English market; in 1821, 18,000 lbs.; when, for a series of years, there was a rapid decline till 1825, when it reached 0 (*nothing*). They subsequently ran up till they reached in 1835, 292,662 lbs.; in 1839, 2,103,546 lbs.; in 1842, 4,195,768 lbs.

South Australia, "a fresh settlement," sent to England in 1840, but 51,590 lbs.; in 1843, 1,387,514 lbs.

New Zealand, just starting in the wool career, furnishes but one authentic importation, that of 1842, when 262 lbs. are reported; yet in 1844, 100 bales were offered at a single sale.

New South Wales affords a fair example of the progress in wool growing. In 1827, the imports were 320,683 lbs.; in 1832, 1,425,657 lbs.; in 1836, 3,008,022 lbs.; in 1840, 7,000,727 lbs.; and in 1844, they were reported to reach 14,000,000. Such is a brief summary of the rapid developments of wool growing, in some of the dependencies of the British crown. Let us see if we cannot derive some useful lesson from a consideration of the foregoing facts.

In each of the settlements above mentioned, there is little that is attractive to the enterprising and intelligent wool growers of Europe, except in the single qualification of money making. Beyond this, there is nothing to compensate for leaving an old and cultivated country, for those so entirely uninviting. In addition to mental and moral privations, there are others of a physical nature, strongly objectionable, one of the most material of which, is the excessive scarcity of water in all the regions mentioned. In the article quoted, there are frequent allusions to the excessive droughts, and to the effects of which a decided inferiority of staple is attributed. The prices of land are quoted at 5s. to 10s. per acre, or $1.25 to $2.50. These prices, it will be observed, range from the minimum, to twice the minimum price of United States Government lands. The purchase of a certain quantity of land there doubtless enables the flock-master to use an illimitable range of unoccupied territory, as the occupant of a few acres of our western prairies can have the undisturbed range of all that belongs to non-residents, or remains unsold. The occupant of New Holland has a somewhat better chance for the permanency of his unbought range than the American farmer; indeed, it is precisely in the inverse ratio of its attractiveness.

The duty on the importation of wool into England is merely nominal, and her market, therefore, is as open to America as to her own colonies. Her consumption of wool is enormous, and we cannot anticipate its being glutted for years to come. Why, then, have our southern farmers been raising an immense over-production of cotton, by which they have sunk the price to one-third of its value, but a few years since? Or, why do our western agriculturists continue their everlasting round of wheat and corn, pork and beef, when they cannot, by this commonplace farming, procure any adequate return for the capital and labor bestowed? There is in this almost universal practice, a bold, forward push into the regions of stupidity, that would do no discredit to the heroes of the motley coat, or that ancient order distinguished by the insignia of the cap and bells. This system has run many of onr states and their citizens into bankruptcy and repudiation, and what is perhaps a greater *blunder*, into nullification and treason; while all the metaphysical, fine strung, 40 bale theories, so satisfactory to their discoverers and promulgators, have failed entirely in extricating them, but are rapidly carrying them deeper and deeper into the abyss. If our southern and western farmers would go as far out of their way to cosset a sheep as John Randolph did to kick one, they would, ere this, have been out of pecuniary difficulty, both public and private.

In the British colonies, wool raising is almost entirely, as in the operations of the planting states of our Union, a commercial enterprise; and, like the operations of tobacco, cotton, rice, and sugar raising, can, wherever grass land is sufficiently cheap, be advantageously and indefinitely extended by a single proprietor. Proper shelter, abundance of the right kind of feed, with competent shepherds and well-trained dogs, in proportion to the extent of the flock, are all that are requisite to success. As long since as 1837, an English gentleman connected with a concern in New South Wales, informed me, that their establishment numbered over 150,000 sheep. An equal number could, with more profit, be kept by a single proprietor in our own country.

Some will properly enough inquire, whether there is not the same danger of over-production in wool growing, as in the staples above mentioned? The question can only be answered conditionally; that land and labor enough in this country could be turned to this object, to produce a glut in the *world's market;* yet that such would be the result, if a largely increased attention were directed to this pursuit, is far from probable. Numerous reasons might be assigned to fortify this opinion, but it is sufficient to mention two or three.

1. The diversion of any considerable employment and capital from present agricultural pursuits, would inevitably tend to improve those pursuits to a degree, which would withhold any curtailment of them, beyond a wise and salutary limit. This would operate as one important preventive to over-production, and restrain the improvident loading of one end of the balance.

2. Whenever wool reaches a certain minimum price, the pelt, carcass and tallow, are worth more for the shambles, than the animal is for his fleece; and it may be worth the inquiry, whether, on sufficiently cheap and well adapted pastures, sheep may not be a very profitable production for this object alone. It is certain that our western farmers have, for some years, found their advantage in slaughtering many thousands annually for this purpose. It would perhaps not be an extravagant estimate, to put the number thus slaughtered in New York and Ohio alone, at over 100,000 during the past season, and that, too, while wool is comparatively high, and with every prospect of continuing so. 30,000 have been thus disposed of in Buffalo and Cleveland, a single point in each of the above states.

This business has been reduced to a perfect system in the colonies above named. Mr. Lloyd, of a *steam* melting establishment at Port Phillip, says: "We have given the result of tallow that may be depended on, our most anxious study, and have arrived at the following conclusions, which we are certain will be found correct. First, that a sheep of the ordinary Merino breed weighing 55 lbs., is just in nice condition for the shambles, and will produce at the melting establishment, 20 lbs. tallow, and for every pound over 55, four-fifths will be tallow. Second, young sheep, say two-toothed, will not produce as much as four-toothed and upwards, of same weight." The following results were obtained from six flocks of different average weight.

Those averaging	44 lbs.	produced	15½	lbs. tallow	each
"	47	"	16¾		"
"	48	"	17½		"
"	52	"	19		"
"	54	"	19½		"
"	65	"	27½		"

The above tallow was worth 28s. per cwt., which brought the average value of the lowest flock to 3s. 2d., or 75 cents each, while the best reached the very handsome price of 6s. 10d., or about $1.60 each, besides the pelt, which is usually worth 35 to 60 cts. in addition. In this country, the hams are extracted and cured like dried beef or venison, and find a ready sale.

3. The growth of wool in the United States will have a tendency to augment our woollen manufactories, one of the most lucrative and reliable sources of wealth which any intelligent nation can secure for itself. This will draw off largely from wool producing to a wool consuming population. We should then have the product of our fields in another form, to constitute another element in our commerce; for our woollen fabrics, like our cotton, *wooden clocks*, &c., &c., will find many a profitable market where the raw material would not pay the cost of freight. We should thus secure the profit on the agricultural production, and probably four or five times as much national profit in addition, on the manufacture; or in the proportion to the labor and capital expended in manufacturing, as compared with the labor and capital of growing the raw material.

Europe has, for two centuries, been drawing the life-blood from us, and nothing but the plethora of an active, well fed, healthy youth, like brother Jonathan, would have sustained himself under the infliction, and kept full veins in his system. They have worked with the long end of the lever, and we, simple souls, have always been content with the short one. In sharing the common plunder, they have invariably said to us, "you may have the owl, and we will take the turkey, or we will take the turkey and you may have the owl." We declared ourselves of age nearly 70 years ago, but have not yet come to years of discretion. Light is beginning to break in upon us in the East, indeed, it is pretty full daylight with *them*; and it cannot be doubted we shall have ere long, a bright and glorious sunshine over all our Union.

It may be a matter of interest to know the peculiar breeds of sheep raised in the "Colonies." The report before us is evidently made up by a commercial man rather than a breeder, and we are consequently without information on this point, except what is incidentally afforded. There seems to have been almost every variety transplanted thither, from the silken fleeced Saxon, to the Alpaca covered Lincolnshire. Hence we see in the first public sale of 1817, quotations varying from 10d. to 10s. per pound, or from 20 cts. to over $2.30; the latter, however, was considered at the time, a fancy price. There were many Saxon and Merinos, well selected and freely bred; also, many of the long wools of England. Much fault is occasionally found with the "low Lincolnshire," and very high commendation is given to the choice "combing wools." We suspect an advantageous cross has been produced between the fine wool and the long, giving fineness, elasticity, and length, to the staple, and thereby eminently adapting it to the most profitable fabrics, bombazines, mousselin de laines, &c. This is a cross frequently made by Long Island and Hudson river farmers, without reference to the fleece, but solely for the advantage of large and early matured, and consequently profitable lambs, for the New York market. It is from such flocks, some of our shrewd manufacturers selected the long stapled fleeces for which they paid some 28 cts. in '43, and resold them to their brother artisans at the handsome turn of 48 cents per lb.

It were much to be desired, that a breed, combining the last mentioned qualities, could be originated with permanent and reliable points. Lord Western's famous experiment, to harmonize and perpetuate the valuable but opposing qualities of the Merino and Long wools, is said to have proved a failure, as was to have been expected, from the violence of the cross. Another Bakewell may, perhaps, in a great degree, accomplish this desideratum; or a union of the skill of several individuals, may possibly effect, what is in the power of a great genius alone to achieve. As the experiment need be attended with no loss, and may serve to excite in observing minds an interest in the result of various combinations, we trust American breeders may, hereafter, give some attention to this feature of this highly important subject.

R. L. ALLEN.

Buffalo, Feb. 19, 1845.

HIRED LABORERS.

THERE is no one thing in which our farmers in the free States are so frequently imposed upon, as in the laborers employed on their farms I speak now more particularly of those farmers who don't labor with their hired men themselves. The following sketch is a fair sample of many others which have come under the notice of the writer, and yet these would-be farmers wonder why they don't make money by farming as well as others. Mr. B. has purchased a farm capable of keeping 100 head of cattle, 100 sheep, 2 brood mares, 1 pair of team horses, and 2 pair of working oxen, one pair 6 and the other 7 years old. These he calculates to work moderately every fair day until they are 8 years old, when he turns off the oldest yoke, and puts on another yoke at 6 years old, and so keeps on a regular routine, supplying them from steers of his own raising. He stables and grooms them the year round, and their growth does much towards paying for their keep. They are in high condition after having done the spring work. At 8 years old they are then turned to grass during the summer and autumn, then fed with cut hay, or straw, with corn ground in the cob, until the following March, when they are slaughtered, and barrelled for family use, supplying his laborers who have families, &c. His other team is a pair of strong farm horses, slow but sure. These he keeps in good condition, well groomed, and never thinks of letting them stand idle a day, any sooner than he would hire a man to stand idle, except it be stormy weather, in which case he never takes them out, but has them groomed and fed the same as when they are worked. Now from this farm he calculates to get every necessary that a farm will produce in the meridian of New York, for the consumption of the farm, and the supply of his family in the city; and although not on as large a scale as many boast of, it is sufficiently large to employ a good many men, and one principal business is to send milk to the city. But I am wandering from the subject on which I started.

The man at the head is one of all work,—scarcely anything in the farming department that he does not fully understand—industrious and faithful in everything; but not so with all the others put under him. Where the work is regular, he can get along very well; but on a farm like the one in question, there must necessarily be much that is complicated, and often a man has to be called from one thing to another, in which case an opportunity is given, if disposed, to play "old soldier,"—as it is sometimes called—and he will take advantage, and use every kind of duplicity to get rid of his duty, not only wasting his own time, but by trifling immoral conversation take away the attention of others from their respective duties; his influence being deleterious wherever it is exerted, and all such creatures have more or less influence among every gang of hands. The owner of the farm having hired this man in the city, from his own good recommendation of himself, the overseer feels a delicacy in preferring complaints against him, and he is suffered to go on for weeks, and perhaps months, doing more injury than a sheep diseased with scab or rot turned in with a flock of healthy ones. It is impossible to know the ultimate loss resulting from employing men who have no fixed principles of right by which they are governed in the discharge of their respective duties, and I have often thought that a farmer did a public injury, as well as himself injustice, by employing and giving countenance to such as I have described.

More than thirty years ago, I was spending an evening with Isaac Hicks, perhaps one of the cleverest merchants in the English acceptation of the term, that ever did business in the city of New York. He made a fortune in a few years, and then retired, and spent the remainder of his life as a farmer on Long Island. He was a man of great conversational powers, and, in all my intercourse with him, I never heard him utter a sentence but was full of meaning and good sound sense. He said that he had often exchanged sentiments with a gentleman (whose name

I shall omit at this time), on the subject of farming, and that in no one thing did they differ so materially as on that of employing laborers; he always employing such as would *lay up* their wages, while his friend only such as would *spend* them between Saturday night and Monday morning. Subsequently to divulging such sentiments, his friend hired a man from the Green Mountains, in Vermont. He kept him on a few months, when the young man came to him one day, and said, "I want to quit." "Why so?" was the reply. No answer. "Do you want more wages?" "That is not my reason for quitting." "I'll double your wages if you will stay." "Sir," said the young man, "you cannot tempt me with money to labor with such an unprincipled set of eye servants as you have on your farm." "Now," said the gentleman, "I am fully satisfied with the correctness of your practice, friend Hicks; but, from my education and habits, I never shall be able to adopt it." Now, I apprehend the difference between these two individuals to be this: The one had been bred in principles that teach the doctrine of doing to others as they would have others do unto them, considering, thereby, that laborers have their rights, and are entitled, not only to their wages, but to the counsel, friendship, and care of those who employ them, many of whom become as wise, as respectable, and as rich eventually as their employers; while the other, having moved in a different circle, had spent much time in Europe, particularly at the Court of France, thereby imbibing, no doubt, the peculiar notions and sentiments of too many in Europe. These are, that the laboring-man is entitled to nothing more than a subsistence, to make him strong and healthy to do his work; and that, as far as education is concerned, it is as entirely unnecessary for them as for the cattle which they drive. S.

EXPERIMENTS WITH PEAT, FISH, POUDRETTE, AND ASHES.

By the bearer, I send you some of the peat (if it deserves that name) I spoke of, from three different ponds, marked 1, 2, and 3, according to convenience of getting. Can you tell me which is the most valuable? also, the comparative value with barn-yard manure and the best way of using it? (*a*)

Of No. 1, I dug about twenty loads last summer. One parcel I mixed with about one bushel lime to one load of mud, letting the moisture which was in the mud slack the lime. With another, the same as before, with the addition in the course of the fall, of 1½ barrels of urine to 3 loads poured into the heap, by making holes with a crow-bar; another left in a heap to dry through the winter and pulverize with the frost, with nothing mixed.

Some of each I have spread this spring upon my grass land; as yet I can see no difference, it having been spread but a few weeks. I am also composting some now with my yard manure; am also gathering a few ashes to try a compost of some with them. Will it *pay* to buy some nitrate of soda or saltpetre to put with it, if so, which is the best? (*b*) Or can I make it a good manure without paying out much money? If so, I can hope to induce my neighbors to make some use of it.

As to the experiment I mentioned of trying last year with different manures, as it could not tell large profits I concluded it was thought contraband to publish it, and have not now my exact minutes, but they would not vary much from the following. The lot on which I experimented was part of an old field that had been literally *tilled to death*, and then lain till the domestic grasses had almost entirely run out, and it was covered with bent grass, ferns, &c. I did not come into possession of it soon enough to plow but once. The soil is a sandy loam.—It was sown the first of September (*c*), the ashes and poudrette, with fish, were added, about the middle of the same month, as I could not get the fish before. The portion was one-and-a-half acres. On half an acre, I put 50 bushels leached ashes, cost with cartage, $7; on another, 4 barrels poudrette, cost the same; on the other, 5,000 white-fish, cost $6.50. The part with fish grew the most vigorously, till near harvest, when it began to mildew and rust, and break down, so that though it gave abundance of straw, I got but about 2 bushels of blasted grain from this; so here I am *minus* $5, beside my labor. From the half acre with ashes, it differed but a few quarts from 6 bushels; here again, beside labor, I was *minus* $2.50. This, though side by side with the other, was not blasted at all; the heads being very fair, though not two feet distant from the other, which was, as before said, wholly so. Can you tell me the reason, and how I can prevent it in future? On the last, with poudrette, which was also fair, I got about 9 bushels. Here I am *minus* 25 cents and labor. The straw on both the ashed and poudrette (while the other was so rusty and mildewed), was very bright, without the least appearance of either. (*d*)

I again sowed the whole on the first of September last, in order to test which manure would last the longest without putting on anything more. To-day, the parts on which I put the fish and ashes, look the most vigorous; the results, however, must remain till harvest. Should I then find myself *plus* far enough, that I may not discourage others, I may, with your leave, venture to scribble again, and also propose some more queries. H. C. SANFORD.

Essex, Ct., May 15, 1845.

(*a*) Nos. 1 and 2 are not what is known in this vicinity as peat, nor do they resemble any thing we ever met called by that name. They seem to be the roots of grass and aquatic plants, mixed with more or less pond mud. No. 2 has least of the pond mud, and is therefore the most valuable specimen. Nothing but a strict analysis could tell its comparative value with stable manure. The best way of using this vegetable matter (Nos. 1 and 2) is, first, put it into pig pens and the cattle yard, and mix it up with the manure. A compost made of equal parts of this and barn-yard manure, would be nearly of the same value as the ordinary kind from stables. Second, compost it with unslacked lime, at the rate of ten bushels of the latter, to one cord of the former. Put a layer of the peat one foot deep, then a layer of lime, and so on, till the heap is made. Let it lie six months, then toss it over well, and it is fit for use. A dry time in autumn is the best season to lay up this compost, it will then be fit for use the following spring. Third, compost it with fish. Put a layer one foot deep, then a layer of fish 3 inches deep. When the pile is complete, cover it with 3 feet of the peat and muck. Let it lie four to six months, then toss it over for use. Put no lime with this compost. Fourth, unleached ashes at the rate of 15 bushels per cord, will also make a good compost. Fifth, it may be spread broadcast upon the land and plowed in, in the fall of the year, but composting is much preferable.

No. 3 is rather a poor quality of muck, or more properly, pond mud. The best application of this is to spread it broadcast upon grass land, one inch thick, in the fall of the year. If it be not too far to cart, it may be used as a top-dressing on grass. The only way to test its value is to make some little experiments with it.

(*b*) We doubt whether it will pay to put either nitrate of soda or saltpetre with these specimens. The former would be the most valuable, as it contains 17 per cent. more nitrogen in it than the latter, and has been found about that per centage the most efficient in vegetation. Saltpetre is worth 7 to 8 cents per lb., nitrate of soda 4½ to 5½ cents.

(*c*) Our correspondent does not say with what grain the land was sown, but we suppose wheat or rye—probably the latter.

(*d*) The land was very poor and should have had a clover or buckwheat crop or two, first plowed in. But it would have been still better to have manured it with 30 cords per acre, of good barn-yard manure, or compost made as recommended above, then planted with corn or potatoes, and follow with grain and seed, down to grass. The rich animal matter of the fish was in too great a proportion unquestionably to the other ingredients in the soil, necessary for the grain crop, and hence blasting and mildew. Had a compost of fish and peat been applied to the land, followed with a hoed crop, then limed or ashed at the rate of 50 bushels per acre, our correspondent would have doubtless obtained good crops. To answer his questions more fully, would lead us into an elaborate essay, and we must refer to the preceding volumes of this periodical for information. In conclusion we would say, that 20 bushels of charcoal mixed with 1,000 fish, would make a very good compost. There is brush enough which can be gathered every year from most any farm, to make considerable quantities of charcoal, and it is so small, that it would burn a first-rate fine quality, fit for immediate use.

IN AND IN BREEDING.

The following letter was addressed to Mr. L. F. Allen by a gentleman in Ohio. For the satisfaction of all those who may be interested in such matters, we insert it with the reply. Mr. A. does well to recommend *caution* in the matter of in and in breeding; for it not only requires great knowledge, judgment, and experience, but the *genius* almost of a Bakewell, to pursue it safely to any extent. We should just as soon attempt to instruct a three year old child how to use a sharp razor without injuring itself, as the great mass of the public upon the science of *in and in breeding*. It is one of those things we have as yet said little about in our periodical, because we have thought it could do little or no good:

"I have derived much information from the Agriculturist on various subjects, but none on this point, viz, the effect of breeding with animals nearly related. I do not know what is the technical term; but this is what I wish to know: I buy one bull, or buck, or boar, with the idea of improving the breeds. Well, the next generation are his own calves, or lambs, or pigs. Or, if I breed from the progeny, they are own brothers or sisters. You get my idea. What I want to know is the effect of this breeding upon the stock. There seems to be reason in prohibiting near relations, men or animals, breeding together. Is there any physiological injury in such breeding? Or must I buy several animals to prevent this? Within what degrees of relationship is breeding admissible, if it is prohibited at all? Now this may be a very familiar matter to others; but I have no knowledge whatever on the subject and only a vague idea that there should be some prohibitions—that a male should not be bred to his own sister, or his own offspring, and perhaps, father. May I ask of you to occupy one of your valuable letters to the Agriculturist with this subject soon? Inquirer."

—

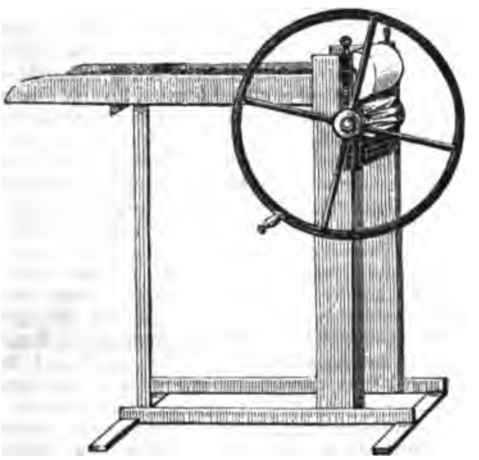
"Breeding in and in" is the term used among breeders of stock, when *close* breeding, that is, father to daughter, son to mother, brother to sister, and all near affinities, are practised. This will do very well, and to a considerable extent, where certain valuable qualities are desired, which the animals you wish to breed from possess. But to do so successfully for any number of generations, requires great strength of constitution and general stamina in the animals on both sides, and long experience, great judgment in the breeder to select such animals as sires and dams, to accomplish it successfully; and therefore, for the general or casual breeder, I would recommend that "in and in breeding" be carried no farther than *one* generation—that is, the sire may be put to his own daughter, and the son to his own mother, for one generation only, not to be continued to grandson or granddaughter, unless under the circumstances I have alluded to above. Brother to sister is considered *closer* breeding than sire to daughter, or son to mother, and of course not so much practised among scientific breeders. In merely raising common cattle, this subject is little thought of, and the plan need not be practised; but it has been by in and in breeding that the finest animals in the world, and the celebrated "improved" domestic stock of all sorts, have been produced; and to do so with success is a nice and most scientific course of proceedure, which, with our helter-skelter American notions, our farmers will be slow to adopt. Our people, as a body, will not pay for all this pains; and till we get more refined notions about these things, and better appreciate the value of *good* breeds of all animals, the nice, pains-taking breeder will hardly get remunerated for his trouble. Improvements, both in theory and practice, however, are slowly progressing in our country, and the time may finally arrive when the value of good breeding in our domestic animals will be properly appreciated.

To go further into explanation of the *science* of breeding would require a labored essay, which I have neither the time nor the ability at present to write; and I trust that before long the pages of the Agriculturist will inform its readers on that subject. There have already been published some selections in that paper, which may be read with profit by any *considerate* breeder of domestic stock. L. F. Allen.

Black Rock, June 10, 1845.

HOVEY'S STRAW CUTTER.

In regard to my straw cutters, I will briefly state, commencing with No. 1, that the frame and straw box is similar to those that have been in common use, except mine are made in a manner more substantial and of superior workmanship, and joint bolts and wood screws are used instead of nails and pins. The running parts of this machine consist of a cylinder, on which are six spiral knives, fastened by screws to six spiral wings, cast on the cylinder. On the shaft or arbor of said cylinder is a balance wheel and crank handle, which is to give motion to the machine. Immediately above the cylinder of knives is a hide roller, about 3½ inches in diameter, and 6 inches long, which, by means of two screws, can be pressed down so as to come in equal and easy contact with the outer surface of the cylinder of knives, between which the cutting operation is performed. The edges of the knives come in contact with the hide roller as they revolve in connection with each other. This motion serves also to draw in the feed after it has been placed in the box, and makes it a self-feeding machine. This simple combination of a cylinder of knives with a hide roller, constitutes the whole moving operations of this important machine, and performs the double purpose of cutting and self-feeding. But the most important part of this machine may be described as follows:



Straw Cutter.—Fig. 56.

These knives are fastened on to the wings on the cylinder by means of two or more binding screws, which pass through the centre of the knife near each end. A slot is cut out from the hole in the knife, through which the screw passes to the inner edge of the knife, the size of the screw, so that by simply starting the binding screws back a little, the knives can be taken off separately without taking out the binding screws, and by means of two set screws, which are inserted in to the cylinder, directly under the inner edges of said knives, running towards the centre of the cylinder. The heads of those screws are slotted like wood screws, and screwed down nearly even with the outer surface of the cylinder, between the wings. On the heads of the screws, near each end, the inner edges of the knives rest, so that by turning out those set screws with a screw-driver, it will force the knife out from the centre of the cylinder, and by this arrangement all the knives on the cylinder are easily adjusted; and in case any one knife should, by extra grinding, or by wear or accident, become more narrow than the rest, it can be set out so as to be perfectly cylindrical and uniform with all the knives on the cylinder; and when so adjusted the binding screws can be screwed up, and hold them firm against the spiral wings. These wings serve to strengthen the knives and support them in their proper position, by means of which the largest cornstalks can be cut in these machines with ease and dispatch.

No. 1 cutter, I think, will cut about 100 lbs. of stalks, hay, or straw, in twenty minutes, by hand power. The hide roller is formed of the best prepared raw hide, and made solid by slipping hide washers or collars on to an iron shaft, and pressing them together with a pressure of more than ten tons before they are turned off. The spiral position of the knives is such, that one end of a knife leaves the hide roller at the same time the next one approaches it; by this means the resistance is uniform and equal; and in consequence of the convex form of the edges of the knives, the uniform manner in which the cutting is performed, together with the angular manner in which the substances are cut, renders this plan the most rapid and easy of any method now in use for the above purpose. The above described machine is the smallest size that I make at present. The others are made on the same plan, and vary only in size and strength.

No.	1	cuts	100 lbs.	hay, &c.,	in	20	minutes.	Price	$12
"	2	"	"	"	"	15	"	"	15
"	3	"	"	"	"	12	"	"	20.
"	4	"	"	"	"	10	"	"	25.
"	5	"	"	"	"	8	"	"	30.
"	6	"	"	"	"	5	"	"	35.

The above are estimated to work by hand power, and cut straw and cornstalks with the same rapidity as hay. If water or horse power is used, it increases their power of cutting; for No. 5 will then cut 100 lbs. of hay, &c., in five instead of eight minutes.

No. 1 to No. 6 cut the feed about 1½ inches long; the other sizes about 1¾ inches. Nos. 1, 2, 3, and 4 have six knives on the cylinders; No. 5 has eight; No. 6 has twelve knives. The size of the hide rollers varies from 3½ to 5 inches in diameter, and from 6 to 8 in length, according to size and price of the machines. The number of revolutions required in the above calculation would be, by hand power, about 40 per minute, and about 60 by horse power. Either of the power cutters are capable of cutting a ton of stalks, hay, or straw, in one hour, if it can be put into the box. The cylinder may run with safety from 60 to 100 turns per minute.

The advantage of having the roller above the cylinder of knives is obvious, from the fact that without gearing the crank would not turn the cylinder the right way without turning backwards; and from another fact, that grit or gravel in the hay will not lodge on the hide roller when it is above the hay, and this prevents in a great measure the dulling of the knives. Were the roller at the bottom, or under the knives, the dust would fall into the indentations made in the roller by the pressure of the knives, and in time would become full of grit and gravel; besides, the machines are more simple without gearing, and less likely to get out of repair. Wm. Hovey.

Worcester, Mass., May 25, 1845.

SPRING PIGS MORE PROFITABLE THAN STORE PIGS.

Knowing your wish is to circulate useful information, I place at your disposal sundry facts connected with an experiment to ascertain whether any advantage could be derived from keeping pigs through the winter. From this I am of opinion that to keep what are usually termed "store pigs" is unprofitable to the farmer, unless the number kept is confined to the consumption of food only (house offal) that has no marketable value; for it is clearly proved by the statements below, that the weight gained during the cold season will not compensate for the extra cost of six months' feeding.

The pigs used for the experiment were of three litters, from my own piggery, viz:

A, 3 pigs, half Chinese and half Berkshire.

B, 3 pigs, half grass and half Berkshire.

C, 3 pigs of same family as B, but a subsequent litter.

Class.	Farrowed.	Slaughtered.	Age.	Weighed dressed.	Average.	Gain of weight per day during life.
				lbs.	lbs.	oz.
A	Oct'r 10, 1842.	Dec'r 17, 1844.	14 months 7 days, or 433 days.	284 285 325	298	11
B	Oct'r 22, 1843.	"	13 months 26 days, or 421 days.	296 304 339	313	$11\frac{1}{12}$
C	April 10, 1844.	"	7 months 27 days, or 241 days.	240 250 257	249	$16\frac{6}{12}$

The pigs of class A had not the advantage of sucklings, the sow having died in the act of parturition: they are an encouraging example of what may be accomplished by care and attention for a few days after birth. Each class was fed on the same kind of food, treated in the same manner, and attended by the same swineherd. B and C were weaned at six weeks old, and till then at no expense for food.

As a further illustration of the truth of my hypothesis, let us, from the whole age of B, 421 days, and the whole age of C, 241 days, deduct the age when weaned, 42 days, and we shall have the time fed of B 379 days, and of C 199 days.

Again, let us from the average weight of B, 313 lbs., and the average weight of C, 249 lbs., deduct the presumed weight if slaughtered when weaned (20 lbs.), which gives the weight gained by B during the feeding 293 lbs., and of C 229 lbs.

	days.	lbs.	day.	oz.
C, - - -	199 :	229 : :	1 =	$18\frac{4}{12}$
B, - - -	379 :	293 : :	1 =	$12\frac{3}{12}$
Extra gain of C per day, -				$6\frac{1}{12}$

But another and more common-sense view of the subject is, that B was fed a little over 12 months, and gained 293 lbs. C was fed a little over 6 months, and gained 229 lbs. Difference for 6 months' feed only 64 lbs.

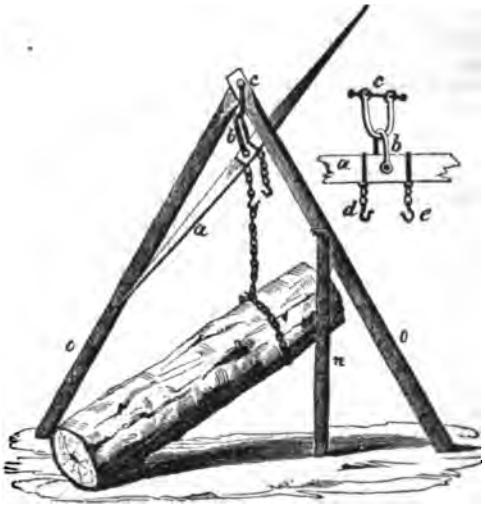
Superadded to these facts, it must be admitted that B, from 6 months' to 12 months' feeding age, consumed much more food than C consumed from 0 to 6 months; consequently that B, during his whole feeding time, consumed more than double the quantity that C consumed during his whole feeding time. *Ergo*, that C was about 100 per cent. more profitable than B. W.

Casina, May 20, 1845.

We esteem the above little article one of the most valuable ever communicated to this periodical. It fully corroborates our advice given in the April number, page 138, on the subject of "Raising Pork." We wish farmers were more in the habit of making such experiments, and giving us the results; their business would then become one of strict calculation and not mere guess-work, as is now too generally the case.

A LOG LOADER.

With this I send you a sketch of a very simple and useful machine, both in the farming and mechanical arts, by the means of which great labor and much time may be saved.



Log Loader.—Fig. 57.

It consists of a double acting lever, *a*, 10 feet long, suspended in the middle by the clevis, *c*, which is hooked in the clevis, the bolt of which passes through the upper end of two shear poles, which admits them to open and shut, as best suits. The hooks *d* and *e* are placed 2½ inches from the fulcrum, connected to the staple by a link and swivel, which enables the hooks to be turned in the links of the chain either way.

The shear poles may be of a length suited to the weight and height of the object to be raised. For loading logs on a wagon, they should be 6½ feet; if it is a short or round object, a third shear pole should be set against a pin in one of the other legs. The machine is to be placed over the object to be raised; a chain is then to be placed around it, one end of which is fastened to one of the hooks of the lever, the lever is then worked, and the hooks to be hooked one below the other alternately.

V. H. Hallock.

Milton, N. Y., April 22, 1845.

TO MAKE FRUIT TREES THRIFTY.

In the month of March wash them as high as a man can reach with one quart of whale oil soap diluted in fifteen gallons of water; and if in April there are caterpillars, give them another dose; then put round the roots of the apple and pear trees two or three shovels full of charcoal dust or anthracite ashes; to the peach, plum, and nectarine trees, I have tried various experiments, yet have hitherto been most pleased with tobacco stems, which are purchased at two cents per bushel Half a peck of stems round each tree is sufficient. The roots are first laid bare; the tobacco is then placed over them and covered with soil. To this, three or four shovels full of anthracite ashes may be added with advantage. The past spring I have tried on all, save peach and nectarine trees—which were so diseased by worms that I ordered them cut up—an application of warm (not *hot*) coal tar from the gas house. We first removed the earth from the roots, picked out the worms, and then with a painter's brush covered the trunk of the tree eight inches up from the roots. After this the soil was immediately replaced around the tree. The effect was astonishing. In May we applied half a pint of guano as a top dressing to each tree, and thriftier trees, fuller of fruit, and with a deeper, richer green foliage, cannot be seen. I mean to treat all my peaches in this way, as the cheapest and best manner of protecting them. Two peach trees I gave up last fall as past all hope of saving. On these I tried an experiment of putting to each fifteen gallons of urine, neutralized with a peck of plaster of Paris. The trees are now living, and the leaves are green; but whether they will thrive well remains to be seen. I think, however, the dose will effect a cure; and if so, it is worth knowing. You shall have the result hereafter. R. L. Colt.

Paterson, N. J., June 5, 1845.

FENCES.

I have noticed in particular what you have said, in regard to the *barbarous* custom of enclosing land with fences. Now, I like your plain, honest bluntness, in attacking some errors which our forefathers fell into, and to which we, their descendants, so pertinaciously adhere. This is sometimes the only way to provoke discussion, and then good may result from it. I, for one, have spent much of the strength of my days, clearing up and fencing a few acres of land, and it has cost me more sweat and money to do it, than all (*pecuniarily* speaking) that I or my posterity can ever get for it. But I have done the best I could, and am satisfied. I can conceive, that in a country where there are no stones for fencing, such a system as you advocate, might and ought speedily to obtain; but in all stony and mountainous districts, it would be more difficult. *True*, stones if cleared from land, might be put into places of deposit, and sunk into the earth with less cost than fencing. But it strikes me, that this is not so easy and practicable as on plain lands. Will you give me a little more light on the subject? L. D. Clift.

Carmel, Putnam Co., N. Y.

Within the past few weeks we have received several letters of a similar purport to the above, and judging from these, our articles on the subject of fences are likely to attract more favor than we at first supposed they would, and do some good, though we are not so sanguine as to believe that changes will be very rapid. Some say they shall abolish half the division fences on their own lands this year, and hope ultimately to be rid of them entirely; others write that when their present fences decay they shall not renew; again, those who were planning various new divisions, declare they shall give them up,—adding in repeated instances, that their fences alone, for the last 30 years, have cost as much as the farms would sell for now, exclusive of the buildings!

Where it becomes necessary to clear the land of stones, and it is about as cheap to lay them up in fences as to otherwise dispose of them, we should have no objection to their being used in this manner. But this is seldom the case, and instead of fencing, we would recommend farmers to cast about and see if there are not bridges to build; causeways to make; ditches and ravines to fill up; roads to Macadamize: and farm-buildings, though the first cost is greatest when made of stone, instead of wood, yet they last so much longer they prove cheaper in the end. Stone is wanted for various other purposes which we need not enumerate; and to the person who wishes to get rid of them without embarrassing himself with fences, he will, without much teaching, find many a place for their safe deposit. We respectfully commend the subject to the consideration of our hard-working yeomanry.

GEDDES HARROW.

I observed in the American Agriculturist for this month, a cut of my harrow, accompanied by some remarks that seem to require notice.

Messrs. Ruggles, Nourse, and Mason, say, they have "made some improvements in it; such as to confine each tooth with a screw nut and washer, tapering the tenon of the tooth through the timber, which does away with all liability to become loose."

Upon a prairie where there are no stones, and teeth very seldom require sharpening, this may be an improvement; but upon the stony hills of New England, or Western New York, it will be found that the old way, of making the teeth of extra length, and leaving them some distance above the top of the timber, in the first instance, that they may be many times sharpened, before they become too short, is the best. A nut by drawing the tooth up in tightening it, shortens it, and the wear of the earth below shortens it, so that between both these causes, the teeth will soon require to have pieces welded on to restore them to their proper length. As to the *superior finish* that Messrs. R. N. and M. give the harrow, no one who has used as many of their superb implements as I have, can for a moment doubt.

Mr. Wilkinson, of Union Vale, has "arranged handles for lifting the harrow when clogged—it has round iron teeth, instead of square ones, with a pair of draught clevies."

The handles were shown at Poughkeepsie, and to the driver may be of some advantage; but they render the harrow much less portable, as with them on, one half cannot be turned over on the other. As to the round teeth, I am not able to discover their superiority. The pair of "clevies," remind me of my first attempt at hitching on to my harrow, a short chain fastened at each end to one of the centre pieces, and a ring in the middle. It would not do. When the simple mode of turning a hook on the end of the pivot of the forward hinge suggested itself, I saw that what was before useless, had become of value. Ultimately Mr. Barton, who makes my harrows for sale, proposed that a rod should run quite through both set of hinges, with a nut and washer on the back end, and an eye with a hook in it, on the forward end. In this form it was engraved and published in the Transactions of the State Society for 1843. Since furnishing the drawing for that engraving, a very important improvement has been made by an eye through which the rod runs, about four inches back of the front hinge, screwed into the corner of the centre timber. This prevents the rod from springing from the draught, when in motion.

Mr. Wilkinson has further improved, by "inserting the side timbers at a less acute angle, thus the implement will spread over more surface;" and I will add, consequently not harrow so fine, by just the gain in width.

Mr. W. took a premium on his harrow at Poughkeepsie, and one made by Mr. Barton was on the ground side by side with it. The explanation is this: Mr. Barton had put his harrow in my charge; and as I was, unexpectedly to myself, made chairman of the committee, and as I would not suffer an implement in my charge to compete for a premium that I had an influence in awarding, it was withdrawn.

The harrow is an implement so much used, that a very small improvement in it is of great importance. With a view to bring it to its most perfect point, I invite Messrs. Ruggles and Co., and Mr. Wilkinson, and every other person who may suppose he has made any improvement in the harrow, to appear at Utica, at the next State Agricultural Show, with their implements, and let them be compared one with another. GEO. GEDDES.

Tyler, N. Y., June 9, 1845.

TREES FOR SHADE AND ORNAMENT.

THE spirit of utilitarianism is carried to such an extent in this country, that the ornamental is almost always sacrificed to the useful. "What will be the gain thereof?" is the question propounded, when any project is proposed, instead of saying, in accomplishing this or that object, cannot the useful and the agreeable be united, thus gratifying the eye, and at the same time satisfy the *pocket*, which is the *primum mobile* of the age.

There is nothing that harmonizes the passions of man, quells the evil influences of trade, or adds to the happiness of the soul more, than to throw around him those various charms which are found in the natural world; the green fields, the flowers, the fruits, majestic trees, with flocks and herds reposing beneath their branches, the waterfall, in fact, the panorama of creation as it meets the eye of the agriculturist in his daily pursuits. It enlarges the soul, expands the intellect, and exalts man. If this be the effect of *viewing* nature in her loveliness, with how much more zest can these things be enjoyed, when our own hands have dug the soil, sown the seed, planted the tree, or trained the vine. We view them then as the fruit of our toil; and all know there is more real enjoyment in witnessing the results of our own labor, than in partaking of that which is bought with silver and gold.

These are some of the thoughts which have been suggested to my mind in reading in your May number the description of the beautiful grounds of Mr. Colt, at Paterson. I can say as did the Queen of Sheba to Solomon, when she saw the splendor of his dominions, "the half has not been told of them." Mr. Colt can truly say that, under his cultivation, the barren hills have been made "to bud and blossom like the rose." It has also induced me to make a few observations on the value and importance of shade trees as an ornament to towns and villages, and to propose a plan by which the object may be accomplished with pleasure to all.

It should require no argument to prove the value and utility of shade trees in public streets and roadsides. Yet when I look at many places in the country, more especially westward, I am pained with the thought that so little attention is given to beautifying them with noble shade trees. In too many cases, the streets are as barren of shade as the ocean. The people of New England have paid considerable attention to this subject, and, as a consequence, most of the villages are well cared for in this particular. If any of your readers have passed through the village of Upper Middletown, Ct., they have probably noticed two splendid rows of maple trees running the length of the main street, which improve the appearance of the place more than would the most costly mansion. And as the inhabitants walk beneath the shade of these trees on a summer's day, and feel the cool breeze as it plays among their branches, have they not a just pride in pointing to them, and are they not a strong tie to bind the people to their native place? I mention this place as an instance, because it is my natal home; many more might be noticed, if it were necessary. Take away the elms from New Haven, and it would be shorn of its beauty.

A description of the avenue leading to the residence of Mr. Clay, as given by a correspondent of the New York Tribune, is so *apropos* to our subject, that I am induced to insert it. "Mr. Clay has paid great attention to ornamenting his lands with beautiful shade trees, shrubs, flowers, and fruit orchards. From the road which passes his place on the north-west side, a carriage course leads up to the house, lined with locust, cypress, cedar, and other rare trees, and the rose, jasmine and ivy were clustering about them, and peeping through the grass and boughs like so many laughing fairies as we drove up. His mansion is nearly hidden from the road by the trees surrounding it, and is as quiet and secluded, save to the throng of pilgrims continually pouring up there to greet its possessor, as though it were in the wilderness."

Facts like these might be enumerated to show their utility. But shade trees have their value in a pecuniary point of view, for they increase the value of land in places thus improved. If an individual is choosing a location, he does not look to the worth of the land by itself, but weighs all the advantages and disadvantages the place possesses; and to a man of taste, shade trees would often be the turning of the scales.

The objection is sometimes urged, when public improvements of this kind are proposed, we may not live to reap the benefit, and what use is it to trouble ourselves about the matter. They forget that their posterity will receive it if they do not, and it is a narrow selfish soul that is not willing to do anything for the future; a spirit which, if carried out by others, would stop many of the public improvements in which mankind are now engaged. What would our country be at this time if our forefathers had acted on this principle? Trees might be planted that would serve the ends of ornament, and be a gain also to the owner. For instance, the maple might furnish sap sufficient to supply the family with sugar; the locust when grown is a valuable timber; the oak and the ash have their various uses, not to specify others that might subserve both ends, proposed to be gained by them. Thus, in a selfish view of the case, they can be made profitable, as they would generally be set out in land that is otherwise a waste or common. I would recommend that each man adopt the plan of planting shade trees in front of his dwelling; if this were done by a few persons, others would soon see the advantages of it, and follow their example.

There is no reason why the United States should not stand pre-eminent among the nations of the earth in this respect. Considerable attention is paid to it in England, with manifest advantage to the people. Nature has done everything she can for us; our soil, our climate, our trees, are all favorable to the end proposed,—it only remains for man to do his duty.

These are some of the reasons I would give in favor of a more general system of ornamenting the towns and villages of our country; many more might be urged did space permit. The following is an instance of what has been done by a systematic effort in a town in Orleans county, New York.

A friend (one of those public-spirited men that the world needs more of), on temporarily settling in the western part of this state, was impressed with the negligence of the people in ornamenting the place with shade trees; and determining that something should be done to remove the reproach, went to work in the following manner. He invited all the young men in the town to meet him on a certain evening, as he had a proposition to communicate to them that was for their advantage. This excited their curiosity, and they therefore met him. He then stated to them the condition of their town, that no shade trees were to be seen in all their streets, the great improvement they would be to the place, and then, after their feelings were enlisted in the subject, showed them how the difficulty might be overcome. He proposed to them to form a *Tree Association*, each member of which was to set out one tree and take care of it, and if it died to set out another and another, until he had a thriving tree. In this way each one felt his individual responsibility, and had an incentive to do his work well, lest others should excel him. The consequence was, that more than a hundred trees were at once set out, and now they have the pleasure of knowing that their town will soon be one of the handsomest in the state.

To those villages which are in like situation, I would commend this plan. Form tree associations, invite the young and the old, and the ladies also, to assist you, and let not your places suffer any longer for the want of ornamental shade trees. Go thou and do likewise.

In this article, I have enumerated some of the leading points in favor of shade trees, believing that it was only necessary to bring it before your readers for them to see its value. C. C. SAVAGE.

New York, June, 1845.

ROSA RUBIFOLIA, OR PRAIRIE ROSE.

I NOTICE in many papers recently a description of the native "Michigan, or Eglantine Rose." That description refers to the single flowering variety which is found in great profusion on our own western prairies, whence the title adopted for it by the horticulturists is "Prairie Rose." It is altogether distinct from every other species in its foliage, which assimilates to that of the Bramble, whence it derives its specific title. The qualities which cause the "Prairie Rose" to be highly esteemed, are, first, its rapid growth, which is often 20 to 30 feet in a season; secondly, its extreme hardihood, the latter being a character which is applicable to none other except the Ayrshire, and not to that in an equal degree. My present object is to call your attention, and that of your readers, to the highly interesting *double varieties* of this class, which appear to be unknown to the writer of the notices I have referred to.

One of these sportive productions was found wild in Ohio, and several others have been produced from seed by Mr. Feast and others, and I have been fortunate enough to produce several fine seedlings, and have now at least a thousand seedlings from which I intend to select the most beautiful for propagation. I am also hybridizing this species with the Bengal, Tea, and other perpetual flowering varieties, and hope to obtain that most important desideratum, a *perpetual flowering fragrant climbing rose*. Perhaps I may succeed in obtaining many of that character differing in color, &c. This is the only climbing rose indigenous to our country, as the Cherokee Rose of the Southern States is originally from Asia, and the sweet-briar, which is a partial climber, was introduced from Europe. We have recently made great additions to our establishment, and particularly in the department of roses. Suffice it to say that this class alone now occupies four acres, and comprises above 1200 varieties, among which are all the splendid new ones that have latterly been produced in Europe by hybridizing the various classes. The public taste has become so fastidious, that scarcely any roses are highly prized, unless they belong to the perpetual flowering classes, and the short-lived June roses, which bloom but once, and then but for a week, have fallen into merited disrepute.

W. R. PRINCE.

Prince's Linnæan Bot. Garden, and Nurseries,
Flushing, June 12, 1845.

MARLING.—A correspondent in South Carolina thus writes us: "I have been marling continually since the fall of 1841, and find that the longer it has lain on the land, and the better it is mixed with the soil, up to the period of its maximum effect, the greater its influence. The quantity which would improve the *first* crop, will destroy the *third*, as I have proved to my detriment. The remedy, however, is simple; more vegetable matter to prevent the calcium from corroding the roots for want of food."

When our lands at the north are well charged with organic matter, marl has a better effect the third and fourth years than the first and second. We presume the soil of our correspondent is of a thin and light quality, and hence the necessity of plowing under a green crop the third year, or giving it something to supply the needed organic matter.

BONE MANURE.

The farmers on Long Island have been using this article for about fifteen years, and are now making golden harvests as the fruits of their experiments. It was introduced there by an Englishman, who first commenced grinding bone in this country; and so incredulous as to its value did he find the farmers in his neighborhood, that he could scarcely dispose of a bushel to any one. He therefore purchased, in the vicinity of Hempstead, a farm, which was reduced so low as to scarcely produce a crop worth harvesting; but, by a judicious application of ground bones, he made it the most fertile of any in its neighborhood. So practical a demonstration of the advantages of bones as this, could not be resisted, and extreme incredulity gave way to the greatest confidence; and it is now very extensively employed by the largest farmers on the island, some of whom now use from 500 to 1,000 bushels per annum with success and profit.

When it is to be applied on corn, it is first mixed in a compost with barn-yard manure or swamp muck, in proportion as 1 to 2, and after fermenting two or three weeks, applied in the hill; but wheat, rye, oats, and buckwheat, are the crops mostly chosen for its application. On these the bone dust is sown broad-cast, and harrowed in. The quantity used in this way is from 35 to 50 bushels per acre, according to the previous strength of the soil. For grass lands it answers well, more especially such as have been depastured for some time by milk cows, or other stock. The reason why it acts so beneficially here is, that the animals have exhausted the lands in a great measure of their phosphates, and the bones restore it again to the land, they abounding with 30 to 70 per cent. of phosphate. Another important effect of the application of bones is, that they have a tendency to prevent clover *heaving out*. The clover can be top-dressed any time convenient before September, and just previous to the frost setting in, say the last of November, and the field should be heavily rolled with a common roller. The bones and the rolling tend to stiffen and bind the soil, and make the action of frost less powerful upon the clover roots.

I find the bone dust that I purchased through your agency has acted in a superior manner to any I have before used. I apprehend that this arises from their being ground in a fresher state. *Old* bones, and such as are *hard boiled*, are not near so valuable as fresh ones, especially in their lasting qualities.

Hempstead, Long Island. R. M. Bailey.

FARMING IN NEW JERSEY.

Steeping Corn and Compost.—I observe that some of the farmers in this delightful section of country are trying many of the improvements of the age. A Mr. Weble says he has tried steeping his corn and other grain in a solution of ammonia, and found much benefit from it. Last year that grown from corn thus steeped was in harvest much sooner, and had larger ears than that planted dry in the same field. He also made a compost or mixture of 1 bushel salt, 1 do. lime, 1 do. plaster, and 1 do. ashes, and put half a gill in each hill at the time of planting. This produced nearly one-third more corn than that alongside, planted dry without any of the mixture. Otherwise, the land was manured alike.

Potato Culture.—I noticed a method of treating potatoes which struck me as very good, especially on old ground. First, furrow the field both ways, and then plant in the check or cross of the two furrows, cover them lightly, yet deep enough to have them vegetate quick. As soon as the sprouts begin to crack the ground, go into the field, and from the cart put a fork or shovel full of coarse or green manure on top of the hill, then plow between, turning the furrows together, and cover the manure Always follow with a hoe and see that the manure is well covered. As the rows run both ways, when time to hoe, plow contrary from the first time, and very little labor is required to hill sufficiently and keep the weeds down. The manure is as safe in this manner as heaped up in the yard or field to wait the fall crop. It is not exposed to the sun, nor is it as likely to heat and throw off the ammonia and other properties essential to vegetation, as it would be in larger quantities or heaps. In digging the potatoes and plowing again for the grain crop, the manure is completely mixed with the earth. I go heart and hand for putting all manure into the earth as soon as it can be got from the farm, whether coarse or fine, especially in the spring of the year, instead of heaping it up to rot and waste through the summer.

Mr. Demarest says, he gets nearly double the quantity of potatoes from this method to what he would without this manure. Coarse manure helps to keep the earth moist under it. I have seen potatoes vegetate and produce well, lying only covered with straw, about 6 inches, and no earth over them.

Passaic County, N. J. E.

WESTERN CALENDAR FOR JULY.

Early in this month harvest usually commences, in latitude 39° and 40°, with some variation for higher or lower latitudes. The farmer should bear in mind, that by cutting his wheat a week before the usual time, he avoids the risk of injury from the rust, secures a better yield, and harvests a grain more productive of good flour. But if he shocks his wheat immediately after cutting, it will mould and be much injured. It should either be cradled, or thrown in small grips, as it is reaped, and suffered to lie till it is cured, before binding. When sufficiently cured it should be bound and put in shocks ready to haul to the mow, the stack-yard, or the threshing-machine.

Timothy meadows are usually ready for cutting about the time the operation of harvesting is completed. But as timothy (*phleum pratensis*) when *fully ripe*, contains more than double the quantity of nutritive matter, which it contains, when cut at the time of flowering; and moreover produces a greater quantity of hay (see A. Beatty's Agricultural Essays, p. 233); it should never be cut before the ends are ripe If cut, when fully ripe, it will cure sufficiently in the swarth; and by the use of the horse rake, the hay may be made with less labor than any other kind. Those who raise hemp should be careful so to arrange matters as to have the hay in stack before hemp is fit to cut, in order to prevent the hay harvest and hemp cutting from interfering with each other.

The garden must not be neglected. The cabbage plants will have been set out, in the previous month, and must be well cultivated in July. This can be done of mornings, while the dew is on the hay.

Cattle, sheep, &c., must be salted as usual.

Prospect Hill, Ky. A. Beatty.

Ladies' Department.

WHAT WOMAN MAY DO.

Ladies of the Revolution.—At the close of our revolutionary war, when our grandmothers attended personally to household duties, from pleasure as well as necessity, a society was formed of ladies residing on farms near one of our principal cities, for the promotion of useful knowledge, and the encouragement of domestic manufactures. They met at each other's houses alternately, once a month, to exhibit each her produce, and to suggest improvements. On that day, particularly, they were not permitted to wear any garment which had not been woven and spun on their own farms, nor place on the table any viand that they had not made or procured from home-grown produce. If the snow-white linen dress was not as delicate as the Irish loom could produce, or the fine blue and white checked apron to be compared with the Manchester gingham, still they were beautiful fabrics, and were worn with more honest pride and pleasure than is generally felt by the modern lady while shining in the gorgeous silks of France. The day of meeting was looked forward to by this little society as one of heartfelt enjoyment, and a charming emulation was excited to procure the best receipts for preparing everything that came under their care on the farm or in the house.

The morning of the day of meeting was spent in comparing the articles each had brought, and in giving and receiving instruction for future improvement; the dinner was equally an object of interest to all, for then came the husbands and brothers to compare whose beef, mutton, and hams were prepared with most care; or which of their fair friends excelled in the less useful though more elegant portion of the feast; and jellies, pastries, and preserves became objects of deep interest; the foaming home-brewed beer, and the sparkling cider were decided unrivalled; and the wines of currant, gooseberry, and even grape, were judged and praised by the guests, amongst whom were often Charles Thompson, Thomas Jefferson, and Benjamin Franklin.

While listening with glowing interest to the details of these happy days, related by one of the society's brightest ornaments and most useful members, I have felt that the humblest topic might be made one of the deepest interest, and that nothing which can contribute to the comfort of others is beneath the attention of a cultivated mind. How eminently useful might such societies be made if extended through our country; and how pleasant the labors of the week or month, if each woman felt that she was working for something beyond mere animal comforts.

Things that may be Learned at Social Meetings.—If at such meetings a few of the elementary works on botany, chemistry, and insects, could be read, how largely would it contribute to their information, usefulness, and enjoyment. Every cook is a practical chemist in a small way, though she may not be aware of it herself; and while she is boiling soap, making yeast, or bleaching her linen, she is performing some nice experiments in chemistry which require knowledge and practice to perform. How much lighter then would be the work of a house if each one knew something of the chemical properties of the ingredients they were mixing, and thus feel certain that some experiments would succeed and some would not. A very little time devoted to well chosen books on this subject will give enough knowledge for household purposes, and when once in the right path of improvement, an intelligent woman will make many interesting and useful discoveries for herself. She will learn that in writing a recipe it is necessary to be very particular in giving not only the exact proportions of the ingredients, but the manner of mixing and the time when each should be added; for on this will mainly depend her success or failure: thus, if she be going to make a light tea cake, she will understand why she had better mix the sour cream or cream of tartar thoroughly through the batter before adding the soda or saleratus, and that when mixed, the cakes must be baked immediately; or that the old notion of the necessity of stirring soup while boiling with a *sassafras* stick could have arisen from nothing but ignorance and superstition. It is a very common saying among good cooks, that they never care for a recipe, that they always go by guess, and that it is nonsense to be so exact in weight and measure. It may be so for them, because, from long practice and good judgment, they have acquired the habit of forming a correct guess at a glance; but wo to the poor family who is obliged to eat the sour, heavy bread, and badly prepared dinners of the cook who has not had the advantage of such knowledge, and who equally disdains instruction. What young housekeeper has not felt the benefit of a clearly-expressed and well-worded recipe, above the common mode of giving one? Take the following example from a book before me:

"*Sponge Cake.*—Twelve eggs, their weight in sugar, half their weight in flour, some grated lemon peel, mix together, bake in paper cases or small tin moulds."

Now none but a good cook who knew how to make sponge cake could possibly succeed by these directions; and none but a very stupid one could fail if obeying the following:

"*Another.*—Take twelve fresh eggs, put them in the scales, and balance them with sugar; take out half, and balance the other half with flour; separate the whites from the yolks, whip them up very light, then mix them and sift in first sugar, then flour, beating all the while, till both are exhausted; add some grated lemon peel; fill paper cases or small tin moulds, and bake them immediately in a moderate oven; if allowed to stand without beating they become heavy. This also makes an excellent pudding, with butter, sugar, and wine for sauce."

A Knowledge of Insects.—Some knowledge of insects and their habits is equally useful to a housekeeper. The woollen moth, the ham skipper, common house fly, and cockroach, and a host of others, are pests that all suffer from and dread; yet no remedy is offered or attempted, because few appear to know their true histories, and are from ignorance unable to guard against them. The woollen moth is a small grey fly, on the wing principally at night, when it is in search of a proper place to deposit its eggs. This it finds in any woollen or fur material that may be exposed. The eggs remain unhatched a longer or shorter time, according to the warmth of the room they may be in. When hatched, they are little worms, which soon spin a sack of silk and particles of the material on which they feed, and so nicely contrived and ingeniously woven around themselves, that it requires sharp eyes to detect them; and thus they feed securely until their time of change, when they make their escape, if not too closely packed away, and suspend themselves to the wall or ceiling, in some dark corner or unmolested place, until the warm spring weather, when they take wing and immediately seek a home for their future progeny. They never feed in, the winged state, and therefore only live a few days. A good house-keeper knowing this, will take good care not to delay packing away her flannels, furs, or cloth, until late in the spring; and at all times be certain that each article is well brushed before being packed, then closely enveloped in a thick linen or cotton cloth, surrounded with pepper, camphor, or turpentine, to prevent the fly from approaching it, or to kill the young worms when hatched, if there should unfortunately be any eggs already deposited. Then each loft, closet, and wall, in the house, should be well swept, and if possible white-washed, to clear away the moths that will always be found hanging around; and no pieces of woollen material, old or new, should be suffered to remain unmolested or exposed.

Fruit and Insects.—To supply the table with good fruit is equally important; and this may be greatly facilitated if the women and children of the house will take it under their care, and spend a few minutes in each day in its culture and protection. A few easy and interesting experiments will show that there is an immense loss of valuable fruit each year, for want of a little knowledge of insects and a few minutes spent in preventing their ravages. For example, take a few fallen plums or apricots, place them in a tumbler nearly filled with earth, cover the tumbler close to prevent the escape of the insects that are in them, and then set it away for a few days or weeks, if it be in the early part of summer, but if late in the season, they must remain until spring unmolested; then carefully turn the earth out, and examine each little lump, and you will find that the worm has left the fruit and made for itself a nicely plastered cell, a little larger than its body, where it remains secure from all injury until it has changed from a worm to a little brown or ash-colored beetle (*Rhynchites cupreas*, or plum weevil). If liberated now they will return to the tree and deposit their eggs in the remaining fruit, which soon falls, and thus one well-filled tree may produce two or three separate broods in a year, according to the season or the quantity of late fruit on the tree. I have known many large, profusely-bearing trees never ripen a single plum, until the system of gathering all the fallen fruit, daily, had been practised for two or three years; then were the owners rewarded by an abundant supply. The growth of insect-larva may be advanced or retarded according to the different circumstances under which it is placed. Those hatched in the spring or summer remain but a short time in the chrysalis state, while those fed in the fall never take wing until the spring has prepared food for them and their progeny. This fact should keep lovers of fruit always on the watch, and the task of picking up the fallen fruit be made pleasurable to the children, by offering a reward for each basket full, or a larger share of that which remains than would belong to them if they had been too lazy or playful to protect it.

Many persons believe they have no time to waste on the study of a bug or worm; but let them think for a moment on the immense amount of produce destroyed by these little creatures in a year, and they will feel that a few minutes of each day devoted to their destruction may be time well spent. They will be rewarded, too, by the pleasure derived from the ingenious habits and instincts of these little creatures, given to them for their support and protection by their great Creator; and while studying their wonderful forms and curious histories, learn that each one has its appointed place and use, and that whatever God has thought worthy of his creation and care, is a fit study for us, their fellow creatures. G. P.

Never-failing Recipes for Soap.—*Soft Soap.*—To 25 lbs. of clean fat, add 16 lbs. potash dissolved in four buckets of water, and boil it until the fat is entirely destroyed. This you must test by taking out some of the soap in a clean cup, add a little water, and let it stand to cool. If the soap becomes thicker and clearer by the addition of water, and continues so, the soap is done; but should it become thinner or whitish, the ley has not combined sufficiently with the fat, and the boiling must continue until it will bear the water test. When it has arrived at this point, add water until it becomes a thick jelly, then let it boil one hour slowly, when it will be finished and fit to be barreled. The most frequent cause of failure is, that the ley is not strong enough for the quantity of fat; therefore, when home made ley is used instead of potash, the ley should be strong enough to float an egg freely. To each gallon of strong ley add three quarters of a pound of clean grease; if cracknels be used, take one pound to each gallon. Boil it very fast, and stir it frequently. A few hours will suffice to make it good soap.

Hard Soap.—Add salt in proportion of one pint to three gallons, let it boil a few minutes, and put it in tubs to cool. Should the soap be thin, try it in a cup if it requires water. If very strong ley be used, water is necessary to thicken it after the incorporation is complete; this must be done before the salt is added. Next day, cut out the soap, melt it, and cool it again; this takes out all the ley, and keeps it from shrinking when dried. The fat should be prepared before soap-making day, by boiling it in clear water and straining out all the bones and flesh, as they give out but little grease and always make the soap impure. Be careful to save the bones and scraps thus left, as they form the best manure for rose bushes, flowering shrubs, and peach trees. S.

A Method of Preserving Fruit fresh all the Year.—Take of saltpetre one pound, of bole-armeniac two pounds, of common sand, well freed from its earthy parts, four pounds, and mix all together. After this, let the fruit be gathered with the hand before it be thoroughly ripe, each fruit being handled only by the stalk; lay them regularly, and in order, in a large wide-mouthed glass vessel; then cover the top of the glass with an oiled paper, and carrying it into a dry place, set it in a box filled all round to about four inches thickness, with the aforesaid preparations, so that no part of the glass vessel shall appear, being in a manner buried in the prepared nitre; and at the end of a year such fruits may be taken out as beautiful as when they were first put in.—*Family Receipt Book.*

Boys' Department.

The Toad.—Boys usually consider the hapless toad, "the most deformed and hideous of all animals," as it has been called—and, what is worse, a butt for every cruel and idle urchin to aim at, and without sufficient reason, the poor thing is treated with almost universal disgust. By some it is thought to be venomous, but this is unfounded; for though the glands on the back secrete an acrid and milk-white humor, there is no evidence of its being poisonous; and the limpid water it discharges when alarmed is said to be by no means deleterious; both of which, in all probability, are only engines of defence against its natural enemies. We well know that a cat will scratch, and a dog or parrot will bite, when provoked; and why should we despise a toad for defending itself when attacked or disturbed? It is true that this reptile is not very beautiful nor prepossessing in its appearance; for it is heavy and lazy in its gait, with a bloated body and carbuncled skin; but look at its beautiful bright eyes, which may vie with those of the hawk, or the perch; and when its valuable services are taken into account, it is to be hoped that it will be considered as deserving of a snug corner in the garden or the conservatory, where it may be petted and cherished like any other domesticated animal, and where its curious and interesting habits may be observed at leisure.

The usefulness of toads under a frame and amongst choice hot-house plants, as well as in gardens and fields, can scarcely be too highly estimated; for it is a well established fact that they live almost entirely upon small worms and insects, and that they will keep melon-beds quite free from ants, beetles, and wood-lice, which they devour by thousands. A single toad will despatch twenty or more of the latter pests in two or three minutes. Blue-bottle and flesh flies are also highly relished by them, and they will likewise attack slugs, wasps, and sometimes bees, when their favorite food is scarce or exhausted.

"The toad," says an eminent naturalist, "is fond of woody, shady, and obscure situations; in summer, of stagnant waters; in winter, of slimy and muddy places, often digging and living under-ground. It is very tenacious of life, and several accounts have been recorded in different countries, of its being found inclosed in stones and trunks of trees, without any visible communication with the atmosphere. It is preyed upon by hawks, owls, and herons, and even by hedgehogs. It is killed by laying snuff on its back." It couples in stagnant water in the spring, and the female is several days in producing her eggs, which, like those of the frog, are enveloped in a mass of jelly; but they are disposed in two distinct lines, sometimes extending twenty or thirty feet in length. The young tadpoles which are hatched from them are smaller and darker than those of the frog; they live in the water until autumn, when they acquire their legs and become terrestrial. The toad has only four toes on the forefeet, and five on the hinder, which are not webbed as in the frog; but there is a small membrane at the base. It has no teeth, and either swallows its food alive, or kills it first by compression. It catches insects with its long, viscid tongue, with a rapidity that the eye can scarcely follow. When we speak of railroad speed, it cannot be compared with the quickness of the motion of this organ, when in the act of capturing a wasp or a fly. The toad casts its skin as snakes and caterpillars do; but it pulls off its old coat (which splits down the back and belly when it is too small) with the assistance of the arms and mouth, and then, it is said, it disposes of its skin by rolling it up into a ball and swallowing it.

Breeding Poultry.—As I think you seem to take a good deal of interest in us Boys, and often express, not only a willingness, but a desire to help us on in our endeavors to obtain useful knowledge, I have taken the liberty of writing you a short epistle. With father's consent and approval, I am going to commence the business of raising poultry; but am not going to follow the too long practised examples of our neighbors, who, acting on the principle that "a hen is a hen," and one is as good as another, continue to multiply a mongrel race of good-for-nothing "varmints" of every form, size, and color, except what is desirable to possess.

I have read a number of books on rearing poultry, by different authors, both English and American; but they don't exactly answer the purpose. They are at a deal of trouble to describe a great variety of kinds that have been seen in various parts of the world, and which you and I may never see, and is of no practical benefit that I know of, yet may be interesting enough to the curious. I believe that if you had a mind to do it, you can give us more real useful information on this subject in one chapter than we can find in a whole published volume. What we want to know is, the *principle* of breeding—how it should be conducted—how far the "in and in" system may be practised without detriment—how we should proceed in crossing to gain advantage—whether it will answer to breed from a cock and hen, both being from the same parents—what will be the effect if such a course is continued—how far consanguinity must be removed in order to improve. From this imperfect communication you will at least understand what we want, and if you will have the kindness to answer it you will very much oblige

One of the Boys.

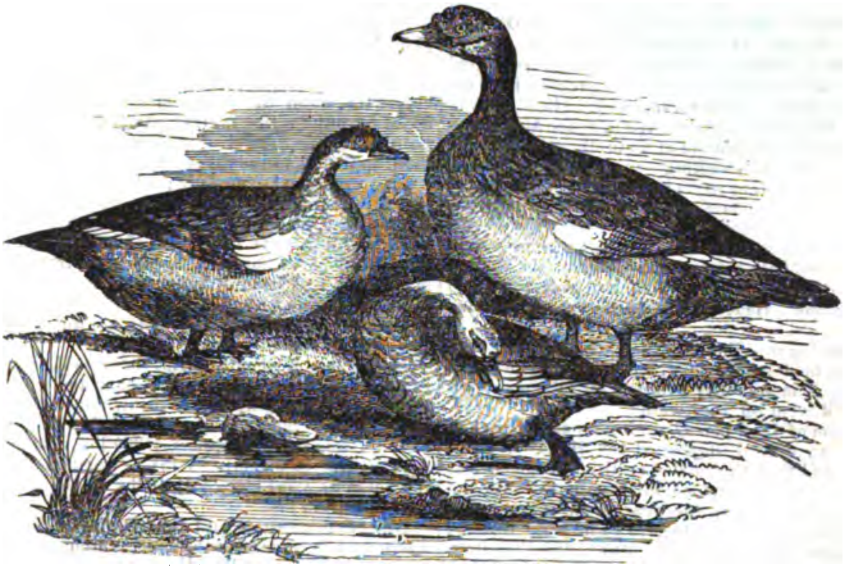
Old Bay State, March, 1845.

Our correspondent shall be answered in good time.

Cure for Fever Burden.—The following quaint and comic old recipe has been sent us by an esteemed correspondent, who says she copied it into her commonplace-book from "The Breviary of Health, by Andrew Boorde, Physicke Doctoure—Anno 1557." We trust that none of the boys who read the Agriculturist will need "*anoynting*" with the "*unguentum baculinum*," especially during harvest-time. We have too good an opinion of them to believe this; yet, lest any one should, here is the recipe for their benefit.

"The 151 chapitre doth showe of an evyll fever, the which doth cumber yonge persons, and named the fever burden or lazy fever. * * * This fever doth come naturally, or else by evyll and slouthful brynging upp. If it do come by nature, then is it incurable; for it can never out of the bone that is bred in the fleshe; if it bee by slouthful brynging upp, it may be holpen by dylligent labour. There is nothyng for the *fever burden* so good as is *unguentum* *baculinum;* that is, take a sticke or wand, a yard of length, and more, and let it be as great as a man's fynger and wyth it anoynt the back and shoulders well, morning and evening, and doe thys 21 dayes—and if this fever wyll not be holpen in that tyme, let them beware of waggynge on the gallowes. And whyles they doe take thys medecine, put no lubberwort in theyre pottage." E. S.

THE MUSCOVY DUCKS.—FIG 58.



The French naturalists assert that the Muscovy duck is a distinct species, and not a variety. It is much larger than the common duck, and is distinguished by a caruncled membrane of a red color, which Brun compares to a cherry, covering the cheeks, and extending behind the eyes, and swells at the root of the bill; this tubercle is wanting in the female, as also the tuft of narrow feathers, and rather twisted, which hangs behind the head of the male, which stands erect when excited. She is also smaller; both stand low on the legs, have short claws, and the inner ones crooked; are a clumsy bird on the ground, light on the wing, and will perch on fences, &c.

"In a wild state," says Brun, "the drake is of a brownish black color, with a broad white patch on the wings, the female being smaller and more obscurely colored." In the domestic state, it exhibits every variety of color, like a common duck. "At one time," says Brun, "the male is white, at another, the female white; in other instances, both male and female are black, and again of great diversities of color; but they are commonly black, variegated with other colors." The black are glossed with green on the back, and changeable, as they are exposed to the rays of the sun.

The Muscovy duck, it appears, is only found in a wild state in South America. Marcgrave has observed it in the Brazils; it is also a native of Guiana. Travellers assert that these birds perch on the large trees that border rivers and marshes, similar to terrestrial birds; they build their nests there, and as soon as the ducklings are hatched, the mother takes them one by one, and drops them into the water; laying takes place two or three times a-year, and each is from twelve to eighteen eggs, quite round, and of a greenish white; the moulting season begins in September, and is sometimes so complete, that the ducks, finding themselves almost entirely destitute of feathers, are unable to fly, and let themselves be taken alive by the Indians. These birds are as shy as our wild ducks, and it is by surprise alone that they are to be shot.—*Main.*

The Muscovy duck is easily fattened, and a prolific breeder, and hence, and though it is also a voracious feeder, it may be rendered profitable to rear. The male is very salacious, and pairs readily with the common duck, producing, by the cross, a hybrid or mongrel breed, which improves the size of the one and the delicacy of the other, but the mongrels, like that of the wild and tame goose, will not breed. The female will also, though not so readily, pair with the common drake. The hybrid has a deep green plumage, and is destitute of the red caruncled membrane on the cheeks, as well as the musky odor of the rump gland of the Muscovy duck. Out of one hundred eggs of this hybrid sort, M. Parmentier was able to succeed in hatching scarcely twenty ducklings; and hence, to keep up the stock, Olivier de Serres advises to continue crossing every year, by keeping a sufficient number of Muscovy drakes with the common ducks.

Scaliger and Olivier de Serres have given out this duck was dumb.

The Muscovy drakes are often very cross aud quarrelsome with other poultry, and we have known them to attack small children, particularly when they happen to have any food in their hands, and for which reason we have abandoned the rearing of them.—*Amer Poult. Companion.*

FOREIGN AGRICULTURAL NEWS.

By the arrival of the steamship Caledonia, we have our European journals to the 4th of June.

MARKETS.—*Ashes* depressed, and few sales. *Cotton* had fallen ¼d. per lb., and was very dull. Stock on hand at Liverpool on the 1st ult., 923,000 bales, against 717,000 same period last year. *Flour* firm, in consequence of the cold unpromising weather. *Beef*, a slight advance. *Pork* and *Lard* quiet. *Lard Oil*, of a pure good quality, in considerable request. *Cheese* brisk, with a trifling advance. *Hemp*, dew-rotted American, sold for 22*l.* per ton—objection, its dark color. *Rice* brisk. *Tallow* improved. *Wool* in good demand. We notice little change in other products.

Money was in fair demand at 2½ to 2¾ per cent.

American Stocks.—Nothing comparatively doing, though a better feeling pervaded in regard to them, in consequence of the late pacific advices. We have before said that we looked upon the idea of a war with Great Britain on account of Oregon, as a mere political humbug on both sides of the water.

The Weather was dry and cold, and unfavorable to the grain crops. Hence a slight advance in the flour market.

Louisiana Sugar.—The first sale of United States' sugar ever held in England, recently took place at Liverpool. The quantity exposed for sale was only small, and it went off very well.

Importation of Wool into Great Britain and Ireland in 1844.—By an official Report of the House of Commons, we find that the total quantities of sheep and lambs' wool, foreign and colonial, imported into the United Kingdom during the year 1844, amounted to 65,079,524 lbs., of which 5,402,098 came from Russia; 1,601,099 lbs. from Denmark; 21,847,684 lbs. from Germany; 1,346,613 lbs. from Portugal; 2,818,353 lbs. from Italy; 1,286,963 lbs. from Turkey, Syria, and Egypt; 1,101,284 lbs. from Morocco; 2,197,031 lbs. from the Cape of Good Hope; 2,765,853 from East India; 2,186,291 lbs. from the States of the Rio de la Plata; 12,406,397 lbs. from New South Wales; and 4,411,804 lbs. from Van Dieman's Land. The total quantities re-exported from the United Kingdom amounted to 1,924,826 lbs.

Exportation of Wool from the above countries during the same year amounted to 8,947,619 lbs.

Importation of other Wools.—The quantities of wool of the alpaca and lama tribe, imported during the year 1844, amounted to 635,357 lbs., of which 47,848 lbs. were re-exported to Belgium and France. The quantity of mohair, or goats' wool, so imported during the same period, amounted to 1,290,771 lbs., of which 97,529 lbs. were re-exported.

Exportation of Woollen Manufactures.—The gross total declared value of the British woollen manufactured cloths, &c., exported from the United Kingdom last year amounted to 8,204,836*l.* Yarns of woollen and worsted, including yarn of wool or worsted mixed with other materials, 1,271,906 lbs.

Importation of Provisions into Great Britain in 1843 *and* 1844.—The cured provisions imported in the year 1843 were as follows: Salted beef, 60,633 cwt.; salted pork, 27,118 cwt.; hams of all kinds, 6,919 cwt.; and bacon, 418 cwt. In 1844 the same articles were imported in the following quantities: Salted beef, 106,766 cwt.; salted pork, 30,780 cwt.; hams of all kinds, 6,732 cwt; and bacon, 36 cwt. In the latter year the following quantities were taken for ships' stores: Salted beef, 77,248 cwt.; salted pork, 16,997 cwt.; hams of all kinds, 1,298 cwt.

Materials of Good Sheep Dipping Composition.—White arsenic one ounce and a half, to be put into a bag and boiled for half an hour in a gallon of water, two ounces of tobacco with three ounces of soap, to be also boiled in the same quantity of water, and then mixed together, adding two gallons of water. This will be sufficient for from sixteen to twenty sheep; the mixture may therefore be brewed in the quantity required, so that a pound of arsenic will suffice for 150 sheep. Care must be taken that the head is not dipped, but the water must be thoroughly saturated.

How to get rid of the American Bug in Apple Trees.—Mr. Waterton, in his essays on natural history, expresses his conviction, that nothing short of a complete deprivation of air can destroy these destructive insects; and describes the following very simple mode of effectually accomplishing this object:—"I mixed clay with water till it was of a consistency that it could be put to the injured parts of the tree, either with a mason's trowel or with a painter's brush. I then applied it to the diseased places of the tree, and it soon smothered every bug; a second coat upon the first filled up every crack which showed itself when the clay had become dry, and this resisted for a sufficient length of time the effects of both sun and rain. The sickly parts, now effectually freed from the enemy which had been preying on their vitals, were placed in a state to be cured by the healing process of nature, and that nature has done her duty, my apple trees amply testify."

Disinfection of Sewers, Cesspools, &c.—M. Siret finds that a mixture of copperas, charcoal, and gypsum, in the following proportions, if thrown into a sewer or cesspool, will purify it to a remarkable degree: Sulphate of iron (green copperas), 200 lbs. Sulphate of zinc (white copperas), 25 lbs. Vegetable charcoal (common or wood charcoal), 10 lbs. Sulphate of lime (gypsum), 265 lbs.

New Manure.—It is said that Professor Liebig has discovered a mineral substance, which, when combined with guano, will produce one of the most fertilizing manures known. A joint-stock company, with a capital of £120.000 sterling, composed for the most part of leading English capitalists, has been formed for the purpose of carrying on upon a large scale the manufacture of the new compound. Among the subscribers are several eminent professors of agriculture, who, according to the *Impartial du Rhin*, give out that the application of this substance to the culture of lands will produce an entire revolution in the agricultural system.

Plumage of Birds.—An instance of the effect of carbonaceous food upon the color of birds, is exemplified by feeding the common bulfinch, for a lengthened period, on rape seed. Under the influence of that diet, the scarlet plumage on the breast will be observed gradually to turn brown, and, by its further continuance, ultimately to change to a dirty black.—*Medical Times.*

Dressing for Asparagus — Give it salt and water every fortnight while the summer-shoots are growing; and when they cease doing so, cease salting also. Your stable-dung will no doubt prove a capital preparation, in addition, for the crop of next year, which will be much improved by not cutting this year. Add guano to the salt and water during this summer, the result will pay you. Nitrate of soda will not act well unless succeeded by wet; in dry weather it does more harm than good.—*Gardeners' Chronicle.*

Fibrous Covering Stimulates Vegetable Growth.—A light covering of *straw*, for instance, on grass land, will stimulate its growth in an extraordinary degree; much more indeed, it would appear, than can be accounted for on the supposition that the ground is thus kept moist in dry weather.—*Ib.*

Poultry.—A chicken was hatched in my hen-house from a nest egg which had so long served the purpose that it was on the point of being removed; it was hatched by the hens which successively chanced to lay their eggs in the nest, aided by the unusual and equable heat of the atmosphere.—*Ib.*

Value of Sea Sand or Marl to Light Sandy Soils.—In a tour through Normandy, in France, Mr. Lorimer remarks in the Journal of Agriculture, that the Normans are not behind the peasantry on our own coasts in availing themselves of the auxiliaries supplied by the sea. This sea marl is usually applied as a compost with farm-yard manure. I was surprised at finding it more generally used in sandy than in stiff clay districts, conceiving, from the state of agricultural science there, that the property for which it was most likely to be prized was that of pulverizing the soil, and not of supplying any chemical ingredients necessary for the growth of crops. On inquiry, however, I found that the peasantry attributed to it quite a different virtue from any I had dreamt of. The reason, they said, why it was chiefly applied to a sandy soil was, that such soil was hot, and required the cool sand to refresh it, whereas stiff clays were cold and required lime to warm them. This explanation, however far from scientific, showed that they had conceived a most distinct and tangible idea of the cause, and had not rested satisfied, as many sets of peasantry would have done, with the mere fact of a real or seeming benefit to their crops from such an application.

The following is the analysis of the above marl, furnished by Professor Johnston:

Organic matter, - - - - - -	5·06
Carbonate of lime. - - - - -	43·50
Gypsum, common salt, and oxide of Iron,	3·43
Insoluble siliceous matter, - - -	47·69
	99·68

It consists almost entirely of fragments of minute crustations, and of the bodies and skeletons of infusorial animals. It is from the latter that silica is derived, siliceous sand being almost entirely absent.

Death of Mrs. Gilbert.—The deceased lady, actuated by an earnest desire to improve the condition of the laboring classes, has for several years devoted her energies to agricultural affairs, and was a zealous supporter of the allotment system, which she carried into practical operation to a large extent on her estate in this parish and the neighborhood. The benefits resulting from her benevolent proceedings, we believe, have fully realized the expectations which the supporters of this system anticipated Self-supporting industrial schools have also been instituted by her, and the plan appears worthy of imitation. We fear her loss will be severely felt in this place.—*Sussex Express.*

Steeping Seeds.—Mr. St. George, of Caub, on Rhine, has discovered that chloride of lime accelerates vegetation in an astonishing degree; he has communicated the discovery to a scientific body in Germany, who are causing experiments to be made. He showed me French beans that had been steeped for four hours in water, in which a quarter of an ounce of chloride of lime to one gallon of water had been mixed; the beans were up with two rough leaves, when other beans which had not been steeped, and planted by the steeped ones, were not above ground, and only sprouted a little. The same effect was produced on lettuces, and a little of the chloride, in powder, was put in the pot, in which was a hardy shrub which would never blossom, and in a short time it blossomed out of the hard wood.—*Gar. Chron.*

Manures at Home.—It is a remarkable thing, that all the investigations of chemists and the experiments of practical farmers, and some of them have been truly ingenious, would seem to point at home as the source of the most valuable manures. A great variety of substances have been tried as fertilizers; but the best amongst them are found to be those that may be said to be ready at hand amongst our household stuff. Thus, you have rape-dust as home produce; you have common salt in continual use; you have salts of ammonia, of potash, and of soda, as well as phosphates of lime and magnesia in the urinary and other excretions, and in a form, too, best fitted for vegetation. Sulphate and muriate of ammonia (sal ammoniac) are found in the soot from coal fires; while potash or its salts are found in the ashes of wood fires, as well as in the water ejected after purifying the body, or its covering, by washing with soap, or other detergents. You have abundance of phosphate of lime (bone-ash), &c., in the hair, flesh, and bones of animals. Nitre (or saltpetre) forms spontaneously around you, in the soil, its grand element, nitrogen, being derived from the atmosphere, or from the transformation of the ammonia of decaying bodies; which element, nitrogen, is so essential to vegetable life, that it has been termed the "moving agent," which, acting under the living principle of the plant, moulds into shape the other elements; nay more, you have a substance that contains all these things, a complete type of guano, in the dung of your domestic fowls.—*Nowell's Man. of Field Gard.*

Urine and Guano.—Fourteen to sixteen cwt. of human urine are equal to one cwt. of guano.

Liquid Manure.—The greatest care should be taken to make the most of this valuable article. The channel which is behind the cows, in every well made cow house, may be filled daily, or morning and evening, with bog mould, if it can be had, which will absorb the fluid. and be thereby converted into excellent manure; or a tank, either a hogshead or a cistern, built of brick, and coated with Roman cement, may be placed where the steepage from the cattle and horses can be conducted to it by drains; the tank should be covered, and have a pump in it, by means of which the fluid can be raised into the liquid manure. Cart and spread over the surface of grass land, or pour over compost heaps, which is perhaps the best method of disposing of it. To this tank, the urine and suds from the house, water in which vegetables are boiled, &c., should be conveyed. This is a branch of economy seldom attended to by farmers in this country, and the consequence is—as much valuable manure is wasted about most farm houses as would, if properly disposed of, increase the produce of the farm to a very great amount. According to Liebig, 100 parts of human urine are equal to 300 parts of the fresh dung of horses, and to 600 parts of that of cows; and we learn from the same high authority, that the liquid and solid excrement of an individual contains nitrogen necessary for 800 lbs. of wheat, rye, or oats, or 900 lbs. of barley; we are hereby enabled to appreciate the industry of the Chinese, in preventing the loss of this valuable species of manure. The chemical composition of urine is as follows: In every 1000 parts there are 933 of water, 30 of urea, 17 lactic acid, lactate of ammonia and animal matter, nearly 4 of sulphate of potash, 39 sulphate of soda, 3 of phosphate of soda, and 4½ of chloride of sodium.—*New Farmers' Journal.*

Forcing Violets.—By attending to the following simple directions, a bunch of these sweet little flowers may be had daily, from November to March. About the middle of May, prepare a piece of ground by digging into it a quantity of leaf-mould; plant this with strong runners one foot apart each way; water in dry weather, and keep them clear of weeds throughout the summer; in October take them up with balls, pot them, and place them near the glass in a cold frame; the pots should be plunged in coal ashes or old tan; they will soon begin to bloom, and continue blooming through the winter; in severe weather they may be removed to the green house, conservatory, or drawing-room, &c. To meet a great demand a few pots of the Russian may occasionally be placed in a stove, but neither the Neapolitan nor double purple like stove heat.—*United Gardeners' Journal.*

Editor's Table.

Transactions of the New York State Agricultural Society, together with an Abstract of the Proceedings of the County Agricultural Societies, and the American Institute. Vol. iv., 1844, pp. 523. We have not had time as yet to give anything more than a cursory look over this volume of the Transactions; but have read enough to say, that they are made up this year with less dry and unnecessary matter, than those of preceding years. In this respect the present volume is much superior to its predecessors; but in according thus much, we must add, that the articles generally, are not as racy nor as able. Too many of them, in whole or in part, have previously appeared in the periodicals of the day, and the State Society has the *poor honor* only left to it of *reprinting* them. This we consider disgraceful, and unworthy the Society, and it should be put a stop to in all future publications. It is a strict rule with the English, and we believe with all other respectable foreign Agricultural Societies, to exact an assurance from all contributors to their Journals and Transactions, that the matter is not only original, but that it has *not before appeared in print*. This rule should be immediately adopted by the N. Y. State Society. Another thing, we notice that all its cuts are BORROWED! Is the Society so poor, with over $4,000 surplus funds in its treasury, that it cannot pay for something original in the way of embellishments? We think this is just as disgraceful as reprinting *old matter*, *revamped* to stuff a portly volume. In setting up the matter, uniformity should be preserved, and the whole leaded or made solid. The typographical errors are numerous, and so palpably gross at times, that they will lead the reader who knows no better, into sad mistakes. Such publications as these are usually looked up to as authority; it is the duty, then, of those who superintend the printing to see it correctly done. We are thus candid in our observations on the Transactions, from a sense of duty to the members at large, and we mean nothing in our tone disrespectful to the officers of the Society. Any reasonable amount of *original* matter can be easily obtained, then why not get it? We would recommend as one means, that liberal premiums be offered for essays on the agriculture of the different counties, after the manner of the Agricultural Societies in Great Britain, taking five to ten counties each year. In this way, the particular agriculture of the State would be ably reported, and a large mass of highly useful matter collected, which would elicit considerable laudable rivalry, and great improvements necessarily follow. We would make the prizes sufficiently high to command the best talent in writing these essays, and when one was not sufficiently deserving, reject it, and repeat the premium. In our humble judgment there is nothing so valuable in British agricultural literature, as the County Prize Essays recently published in the journals of that kingdom.

The Dog and the Sportsman: Embracing the Uses, Breeding, Training, Diseases, &c., of Dogs, and an account of the different kinds of Game, with their Habits. Also hints to Shooters, with various useful recipes. By J. S. Skinner. With illustrations. pp. 224. Lea & Blanchard, Philadelphia. Price 80 cents. The above is a pleasing and useful work, written by a hearty lover of the canine species; but we regret to say, that the author has not gone far enough, and treated the subject in too limited a manner; confining himself mainly to an account of some half dozen breeds, leaving out nearly all that are indigenous to our country. We have never seen a complete work on dogs, although we are familiar with pretty much all published on them in Europe and elsewhere; and we must confess, notwithstanding considerable ability has been displayed in these, that the history of dogs has yet to be written. The first animal we ever owned was a puppy, and wherever we could keep them, we have had a troop of dogs running at our heels. Many extraordinary things have we witnessed of their sagacity, which we would transcribe with great pleasure for any one who would promise to write a complete history of this noble and affectionate animal. The illustrations of Mr. Skinner's work are very spirited and faithful, and do great credit to the artist who sketched them. He must have been a dog fancier, or he could not have drawn them so well.

The Fruit and Fruit Trees of America; or the Culture, Propagation, and Management, in the Garden and Orchard, of Fruit Trees generally; with descriptions of all the finest varieties of Fruit, native and foreign, cultivated in this country. By J. A Downing. Illustrated with numerous engravings Wiley & Putnam, New York and London. pp. 594 At length we have the gratification of announcing this long expected work, and from a perusal of it, we can say, that nothing compared with it on the subject of Pomology has yet been published in the United States. The author gave us reason to hope that this work would have been issued sixteen months ago, but in our last visit at his beautiful residence in Newburgh, we found him so desirous to make it as perfect as possible, and worthy the entire confidence of the public, that he should go through twice the labor in preparing it that he at first anticipated, and hence the long delay. This will unquestionably be much to its advantage, and we prophesy that "The Fruits and Fruit Trees of America" will now become the standard pomological work of this country; for the great care which Mr. Downing has bestowed on the different kinds, arranging and connecting numberless synonymes, and giving accurate outlines and descriptions will make it as safe a guide as it is possible to get up The culture of fruit is no longer a matter of pleasure and luxury with us, but one now of necessity for food of man and beast; indeed, it has become of vast national importance. A finer climate for fruit, or more productive soil than the United States, does not exist. Our apples are well known in the West Indies, and nearly every country in Europe, and the exportation of them abroad is rapidly becoming a very important business. Then the home consumption of all kinds of fruit is enormous. The author of the work under notice states, that there are more peaches exposed in the market of New York, than are raised in all France. The style of Mr. Downing is lively, clear, and perspicuous. The publishers have got up the work very handsomely, issuing two editions—the one large 8vo., uniform with Landscape Gardening and Cottage Residences, price $2.50; the other 12mo, price $1.75. We anticipate for these editions a large sale.

The Chemistry of Vegetable and Animal Physiology, by Dr. G. J. Mulder.—We have No. 2 of this able work on our table, from the press of Wiley & Putnam, 161 Broadway. Price 25 cents.

The Exploring Expedition. Four volumes of the cheap edition of this valuable work are now issued from the press of Lea & Blanchard, Philadelphia. We have some valuable selections from it on agriculture in type, with an illustration; but the crowded state of our columns has prevented its being made up the present month. For a more particular notice, see our last number.

Downing's Cottage Residences. Wiley & Putnam have sent us the Second Edition of this elegant and useful work. We have heretofore noticed this and the first edition at length; and can only add, that before building, every country gentleman should consult it.

British Duties on American Wheat and Flour.—By the following Table, the merchant, miller, or farmer will be able to tell at a glance when it will answer for him to ship wheat or flour to England It will also show that the high duties almost effectually exclude the people of the United States from ever supplying any considerable amount of these articles; as, by the operation of what is termed the *sliding scale*, whenever the price in England reaches the point which would justify our farmers or merchants to ship, the market is supplied by Germany or other contiguous grain growing countries long before our cargoes reach Liverpool; and as the prices of the articles are lowered the duties go on increasing, so that by the time of the arrival of the American flour, in nine cases out of ten, the duty on a barrel of flour is nearly up to $3.

The Table is calculated as follows: eight bushels to the quarter, and five bushels to the barrel, which is sufficiently near for the purposes intended.

On Wheat and Flour Imported into England from the United States.

Whenever Wheat per quarter (8 bu.) is worth					The duty is	
s.	$ c.		s.	$ c.	s.	$ c.
		under	51	or 12 24	20	or 4 80
51	or 12 24 and	"	52	or 12 48	19	or 4 56
52	or 12 48 and	"	55	or 13 20	18	or 4 32
55	or 13 20 and	"	56	or 13 44	17	or 3 08
56	or 13 44 and	"	57	or 13 68	16	or 3 84
57	or 13 68 and	"	58	or 13 92	15	or 3 60
58	or 13 92 and	"	59	or 14 16	14	or 3 36
59	or 14 16 and	"	60	or 14 40	13	or 2 12
60	or 14 40 and	"	61	or 14 64	12	or 2 88
61	or 14 64 and	"	62	or 14 88	11	or 2 64
62	or 14 88 and	"	63	or 15 12	10	or 2 40
63	or 15 12 and	"	64	or 15 36	9	or 1 16
64	or 15 36 and	"	65	or 15 60	8	or 1 92
65	or 15 60 and	"	66	or 15 88	7	or 1 68
66	or 15 84 and	"	67	or 16 08	6	or 1 44
69	or 16 56 and	"	70	or 16 80	5	or 1 20
70	or 16 80 and	"	71	or 17 04	4	or 92
71	or 17 04 and	"	72	or 17 28	3	or 72
72	or 17 28 and	"	73	or 17 52	2	or 48
73	or 17 52 and over				1	or 24

Whenever Flour per barrel is worth							The duty is		
s.	d.	$ c.		s.	d.	$ c.	s.	d.	$ c.
			under	31	10½	or 7 65	12	6	or 3 00
31	10½	or 7 65 and	"	32	6	or 7 80	11	10½	or 2 85
32	6	or 7 80 and	"	34	4½	or 8 25	11	3	or 2 70
34	4½	or 8 25 and	"	35		or 8 40	10	7½	or 2 55
35		or 8 40 and	"	35	7½	or 8 55	10		or 2 40
35	7½	or 8 55 and	"	36	3	or 8 70	9	4½	or 2 25
36	3	or 8 70 and	"	36	10½	or 8 85	8	9	or 2 10
36	10½	or 8 85 and	"	37	6	or 9 00	8	1½	or 1 95
37	6	or 9 00 and	"	38	1½	or 9 15	7	6	or 1 80
38	1½	or 9 15 and	"	38	9	or 9 30	6	10½	or 1 65
38	9	or 9 30 and	"	39	4	or 9 45	6	3	or 1 50
39	4½	or 9 45 and	"	40		or 9 60	5	7½	or 1 35
40		or 9 60 and	"	40	7½	or 9 75	5		or 1 20
40	7½	or 9 75 and	"	41	3	or 9 90	4	4½	or 1 05
41	3	or 9 90 and	"	43	1½	or 10 35	3	9	or 90
43	1½	or 10 35 and	"	43	9	or 10 50	3	1½	or 75
43	9	or 10 50 and	"	44	4½	or 10 65	2	6	or 60
44	4½	or 10 65 and	"	45		or 10 80	1	10½	or 45
45		or 10 80 and	"	45	7½	or 10 95	1	3	or 30
45	7½	or 10 95 and over						7½	or 15

On Wheat and Flour Imported into England from Canada.

Whenever Wheat per quarter is worth					The duty is	
s.	$ c.		s.	$ c.	s.	$ c.
		under	55	or 13 20	5	or 1 20
55	or 13 20 and	"	56	or 13 44	4	or 96
56	or 13 44 and	"	57	or 13 68	3	or 72
57	or 13 68 and	"	58	or 13 92	2	or 48
58	or 13 92 and over				1	or 25

Whenever Flour per barrel is worth							The duty is		
s.	d.	$ c.		s.	d.	$ c.	s.	d.	$ c.
			under	34	4½	or 8 25	3	1½	or 0 75
34	4½	or 8 25 and	"	35		or 8 40	2	6	or 60
35		or 8 41 and	"	35	7½	or 8 55	1	10½	or 45
35	7½	or 8 55 and	"	36	3	or 8 70	1	3	or 30
36	3	or 8 70 and over						7½	or 16

In these tables the pound sterling is computed at $4.80, which is the legal value. The actual value is $4.85 a $4.87 —*New York Tribune.*

To Make Vinegar.—Take eight gallons of clear rain water, add three quarts of molasses, put into a good cask, shake well a few times, then add two or three spoonfuls of good yeast, or two yeast cakes. If in summer, place the cask in the sun; if in winter, near the chimney where it may be warm. In ten or fifteen days, add to the liquor a sheet of brown paper, torn in strips, dipped in molasses, and good vinegar will be produced. The paper will in this way form what is called the "mother," or life of vinegar.—*New Gen. Far.*

A Cent in an Ox's Liver.—Mr. Walter Hasty of Limington, a few days since, found a *cent* embedded in the middle of an ox's liver, which he was cutting up. The liver was entirely closed around the cent, and on removing it the imprint of the letters was seen upon the parts with which they had been in contact. Mr. H. bought the liver in Portland. We have the cent in our possession. It is a halfpenny of Lower Canada, and bears date of 1837. How it could have got into the place whence it was taken, may be matter of speculation for the curious —*Saco Democrat.*

Pork Business in Sciota Valley.—The number of swine slaughtered there last year was 121,800; this year, 48,350; showing a deficit from last year of 73,450.

Preservation of Apples.—A gentleman from the northern part of Indiana recently communicated to us a fact in regard to the preservation of apples, which will be new to many of our readers, and valuable to all farmers. He says that to keep apples from autumn to June, he places them in a shallow hole, dug as for Irish potatoes, having covered the bottom with cornstalks or straw, and the straw with dirt to the depth of about five or six inches. No shelter is placed over them. As soon as the severe winter arrives, and the ground and perhaps the apples themselves become thoroughly frozen, straw is again placed over the frozen heap, and the whole again covered with a coating of earth—this time ten or twelve inches thick.

The object is to keep the first coating of earth frozen until spring, and then cause it to thaw very slowly.

The same treatment may be given to turnips, Irish potatoes, beets and carrots. Any of those roots may be thoroughly frozen without injury, provided they are covered well over, and suffered to thaw by slow degrees.

Sweet potatoes are almost the only exception among roots to this rule. They are injured by a small degree of cold and without being frozen. If in the frozen state, an Irish potatoe is put into cold water until the frost is out, and then cooked, it will be as good as if it had never been frozen. All these are facts which we know from our own experience and that of many others.

We do not know to what paper to give credit for the above.

Analysis of Seed Cotton as a Farmer—not as Chemist.—I have, as is my usual custom, weighed and ginned out a lot of cotton, and give the result of the analysis. The loss of thirteen lbs. I am unable to account for, knowing accuracy and care were observed; for I weighed every parcel and ginned it myself—for where popular accuracy is required, I do all the work I can.

Weight of seed cotton,		404½ lbs.
" Cotton seed,	274½	
" Cotton,	114	
" Motes,	3	
" Loss.	13	404½ lb

The seed measured heaping measure, 11 bushels. The seed weighed per bushel 25 lbs.

It thus requires 1410 lbs. of dry cotton to make a bale of 400 lbs., exclusive of baling and rope, which contains 35 hushels of seed, and yields the small average of 28 lbs. per cwt.—*South West Far.*

Maple Sugar.—The Montpelier Watchman estimates the value of the sugar crop of Vermont, the present year, at $1,000,000.

REVIEW OF THE MARKET.

PRICES CURRENT IN NEW YORK, JUNE 23, 1845.

ASHES, Pots,	per 100 lbs.	$3 81	to	$4 00
Pearls,	do.	4 12	“	4 25
BALE ROPE,	lb.	6	“	9
BARK, Quercitron,	ton,	22 00	“	23 00
BEANS, White,	bush.	1 25	“	1 50
BEESWAX, Am. Yellow,	lb.	28	“	33
BOLT ROPE,	do.	12	“	13
BONES, ground,	bush.	40	“	50
BRISTLES, American,	lb.	25	“	65
BUTTER, Table,	do.	15	“	18
Shipping,	do.	8	“	11
CANDLES, Mould, Tallow,	do.	9	“	11
Sperm,	do.	25	“	38
Stearine,	do.	20	“	25
CHEESE,	do.	4	“	8
COAL, Anthracite,	2000 lbs.	4 50	“	5 50
CORDAGE, American,	lb.	11	“	12
COTTON,	do.	5	“	10
COTTON BAGGING, Amer. hemp,	yard,	13	“	15
American Flax,	do.	16	“	17
FEATHERS,	lb.	26	“	33
FLAX, American,	do.	6½	“	7
FLOUR, Northern and Western,	bbl.	4 30	“	4 88
Fancy,	do.	5 00	“	5 50
Southern,	do.	4 30	“	4 88
Richmond City Mills,	do.	6 50	“	7 00
Rye,	do.	3 00	“	3 25
GRAIN—Wheat, Western,	bush.	1 00	“	1 08
Southern,	do.	1 00	“	1 05
Rye,	do.	65	“	67
Corn, Northern,	do.	46	“	48
Southern,	do.	44	“	46
Barley,	do.	50	“	52
Oats, Northern,	do.	36	“	37
Southern,	do.	30	“	32
GUANO,	100 lbs	2 50	“	3 00
HAY,	do.	40	“	46
HEMP, Russia, clean,	ton,	190 00	“	200 00
American, water-rotted,	do.	105 00	“	185 00
American, dew-rotted,	do.	75 00	“	125 00
HIDES, Dry Southern,	lb.	9	“	10½
HOPS	lb.	13	“	14
HORNS,	100.	2 00	“	8 50
LEAD.	lb.	3	“	4
Sheet and bar	do.	4	“	4½
MEAL, Corn,	bbl	2 38	“	2 56
Corn,	hhd.	11 50	“	12 00
MOLASSES, New Orleans,	gal.	28	“	31
MUSTARD, American,	lb.	16	“	31
NAVAL STORES—Tar,	bbl.	621	“	2 25
Pitch,	do	80	“	1 00
Rosin	do.	55	“	70
Turpentine,	do.	2 75	“	3 25
Spirits Turpentine, Southern,	gal.	38	“	40
OIL, Linseed, American,	do.	67	“	70
Castor,	do.	57	“	65
Lard,	do.	55	“	70
OIL CAKE,	100 lbs.	1 00	“	——
PEAS, Field,	bush.	1 25	“	1 50
PLASTER OF PARIS,	ton,	2 75	“	3 00
Ground, in bbls.,	of 350 lbs.	1 12	“	1 25
PROVISIONS—Beef, Mess,	bbl.	8 00	“	10 00
Prime,	do.	5 50	“	6 50
Smoked,	lb.	6	“	8
Rounds, in pickle,	do.	4	“	6
Pork, Mess,	bbl.	12 00	“	13 50
Prime,	do.	9 00	“	10 62
Lard,	lb.	7½	“	8½
Bacon sides, Smoked,	do.	3	“	4
In pickle,	do.	3	“	4
Hams, Smoked,	do.	6	“	10
Pickled,	do.	4	“	7
Shoulders, Smoked,	do.	5	“	6½
Pickled,	do.	4½	“	5
RICE,	100 lbs.	3 12	“	4 00
SALT,	sack,	1 35	“	1 45
Common,	bush.	20	“	30
SEEDS—Clover,	lb.	6	“	7
Timothy,	7 bush.	10 00	“	12 00
Flax, rough,	do.	8 50	“	9 00
clean,	do.	11 00	“	12 00
SODA, Ash, cont'g 80 per cent. soda,	lb.	3	“	3
Sulphate Soda, ground,	do.	1	“	—
SUGAR, New Orleans,	do.	5	“	8
SUMAC, American,	ton,	25 00	“	27 50
TALLOW,	lb.	6½	“	7½
TOBACCO	do	2	“	6
WHISKEY, American,	gal.	21	“	22
WOOL, Saxony,	lb.	35	“	50
Merino,	do.	30	“	35
Half-blood,	do.	25	“	30
Common,	do.	20	“	25

NEW YORK CATTLE MARKET—June 23.

At Market, 1100 Beef Cattle (875 from the South), 80 Cows and Calves, and 1500 Sheep and Lambs.

Prices.—Beef Cattle—The market last week, was unusually dull, and the transactions were smaller than they have been for three months. Buyers were very backward, and of the comparatively small offering, 300 remain unsold. Holders, notwithstanding, still hold out for, and in some instances have succeeded in obtaining last week's prices, which we accordingly presume—for inferior and middling qualities $5a5.50; superior $6.75, and a few extra at $7.

Cows and Calves.—Prices have experienced a considerable decline. We quote $18a24 to 28.

Sheep and Lambs.—Sheep $1.25a$2.50 to $3.25, a decline of of 5 cents on the prices of last week.

Remarks.—This is a dull month, and business transactions limited. *Ashes* in fair request. *Cotton* languid. Exported from the United States since September last 1,916,066 bales; same time last year, 1,425,383; same time year before, 1,884,948. *Wheat* a good supply. *Rye* and *Corn* scarce at this moment. *Hay* brisk and has advanced. *Beef* and *Pork* firm. *Rice* the same. *Molasses* and *Sugar* dull. *Tobacco* in fair demand. *Wool* quiet.

Money is very plenty at 4½ to 6 per cent. in the city.

Stocks are in no great demand.

The Weather has changed at last with us, from very dry to showery, and everything looks green and fresh again. It has been exceedingly hot the past month. The Wheat and Rye harvest is already over South of us, and proves better than was anticipated. Oats and Barley are looking well, though the straw is short. Corn is growing rapidly and promises to be a fair crop. Roots are improving, but it is too early to decide what the crop of these will be. Fruit is reasonably abundant. Cotton, Rice, and Tobacco appear well. There are many complaints as usual; but upon the whole we shall look for a full average of crops for everything except hay, and this is not cut short north of 41°.

Notice to Farmers and Gardeners.—The Board of Agriculture of the American Institute have appointed a committee for the purpose of examining field crops growing in the vicinity of New York. The committee are ready to visit any farms or fields, and report upon their merits to the managers of the next Annual Fair, to be held at Niblo's Garden in October next, and will award premiums on the same. Application to be made to T. B. Wakeman, Esq., Corresponding Secretary, at the Repository of the American Institute.

EXOTIC, NURSERY, AND HORTICULTURAL GARDENS,
Flushing, L. I., near New York.

The subscribers having established a Nursery with the above title, with the determination of conducting it in the very *best* manner in all its departments, offer for sale, *at reasonable prices*, a *select* variety of

FRUIT AND ORNAMENTAL TREES,
Hardy Shrubs, Herbaceous Plants, Grape Vines of all the best kinds, superior Strawberries, Fastolff Raspberry, Gooseberries, &c.
BULBS AND TUBERS, SUPERB CARNATIONS, DAHLIAS, &c.
AND A MOST EXTENSIVE AND CHOICE COLLECTION OF
GREEN-HOUSE AND STOVE PLANTS,
Embracing everything *new* and *beautiful* in that department, personally selected in Europe during the past summer, of
ROSES AND CAMELLIAS.

We have a very choice collection of the former, full 1,000 varieties, and of the latter nearly 300, all in fine order.

Catalogues of the above will be sent gratis to all applicants, *post paid*, and every order promptly executed. From unknown correspondents, a remittance, draft, or satisfactory reference expected.
VALK & CO.

DURHAM BULLS.

Three very superior Durham Bulls, from one to two years old, are offered for sale, or exchange for other stock. They were bred in this vicinity, and are of the best Herd Book pedigrees. Apply post paid to A. B. ALLEN, New-York.

AGENCY FOR THE AMERICAN AGRICULTURIST.

Mr. Alonzo Sherman, of Trumbull, Fairfield County, Connecticut, is hereby appointed General Agent of the American Agriculturist, with authority to appoint Sub-Agents in any part of the United States; and we hereby recommend him to the attention of our friends wherever he may go, and hope they will extend such aid and assistance to him, as will forward the object in which he is engaged.
SAXTON & MILES, 205 Broadway, N. Y.

HARROWS AND CULTIVATORS.

A good assortment of the Improved Geddes Harrows can be had from $12 to $15. Also, Cultivators, from $4.50 to $6.50.
A. B. ALLEN, 205 Broadway.

FARMS FOR SALE.

The Farm in West Groton, known as 60 acres in the North East corner of Lot No. 63 Locke, consisting of a Farm House nearly new, Barn, and about Forty acres of improvement surrounded by a good fence, and now occupied by Robert Armstrong. Price, $1,500. One Thousand Dollars can remain on Mortgage for Ten years, at legal interest, half yearly.

ALSO,

The Farm known as the State 100 acres in the South East corner of Lot No. 2, Cicero, about a mile from the town of Brewerton, on the outlet of Oneida Lake, consisting of an improvement of 40 acres fenced, with log buildings, and 60 acres of Woodlands.

ALSO,

The Farm known as the State 100 acres in the South East corner of Lot No. 54 Hannibal, a short distance from the town of Fulton, on the Oswego River, good woodland, with a small clearing.

ALSO,

The Wood Lot known as the State 100 acres in the South East corner of Lot No. 5 Manlius, a few miles from Syracuse, and in a good neighborhood.

ALSO,

Wood lot known as the	S.	100 acrs.	in the	S. E. c.	of	Lot	No. 7	Solon.
”	”	”	“	“	“	“	19	“
”	Survey	50 acres	“	“	“	“	25	“
”	”	50	“	“	“	“	29	“
”	”	50	“	N. W.	“	“	36	“
”	”	50	“	N. E.	“	“	39	“
”	”	50	“	S. E.	“	“	58	“
”	sub. 1	83	“		“	of lot	76	“
”	” 7	30	“		“	“	“	“
”	Survey	50	“	N. W. cor. of		“	98	“
”	State	100	“	S. E.	“ of	“	65	Virgil
”	Survey	50	“	N. E.	“	“	68	“
”	”	50	“	N. W.	“	“	69	

Apply to JAS. L. BRINCKERHOFF,
f1 6t No. 32 Laight Street, city of N.Y.

GUANO, JUST RECEIVED FROM ICHABOE.

THE cargo of ship Shakspeare, from Ichaboe, of very superior quality, landing at the Atlantic Dock, Brooklyn. It has been well ascertained, that this Guano is superior to any other, as it brings forward crops earlier, and is equally lasting. For general farming, it will increase the crops from **30** to **50** per cent.; and for market purposes, it will enhance its value at least **200**, and in some instances **400** per cent. 300 lbs. is sufficient for an acre. For sale in lots to suit purchasers, with books directing how to use it, by E. K. COLLINS & CO.

April 12th, 1845. 56 South street, N. Y.

—

E. K. & Co. have also for sale the best authenticated works on Guano, proving beyond doubt that it enhances the value of all crops 30 to 75 per cent. beyond its cost, and market gardening much more, bringing forward vegetables from two to four weeks earlier. Three hundred weight is the full average quantity used per acre. It is said also to be a preventive against rust, mildew, and the fly in wheat, and rot in potatoes.

☞ The work on Guano is now ready for delivery. m1

CENTRAL AFRICAN GUANO,

The best sample in Market, and fresh from the Island of Ichaboe.

This cargo was among the first taken from Ichaboe, and was chosen from the best on the Island, and having been brought home in tight, iron-bound casks, instead of the usual manner of transportation in bulk, its fertilizing salts were better preserved than they otherwise could be. The following is an analysis of an average sample of it, by Dr. Chilton, the most eminent analytic chemist in this city. He pronounces it to contain more phosphate of lime, and less water, than any other sample of African Guano submitted to his inspection.

Phosphate of Lime,	38·00
Phosphate of Ammonia, Carbonate of do. Urate of do. Oxalate of do.	22·94
Sulphate of Potass, &c. Chlorides of Sodium, &c.	4·17
Silica,	·58
Water,	18·65
Undetermined organic matter, containing Nitrogen,	15·26
Loss, &c.,	·40
	100·00

Price, $40 per ton, of 2,000 lbs., or $2.50 per 100 lbs., in bags. Apply to E. D. HURLBUT & Co., 84 South street, or to
1t* A. B. ALLEN, 205 Broadway, N. Y.

BONE DUST FOR SALE.

Having been appointed Agent of the Portchester establishment, the subscriber will be ready at all times to supply orders for Bone Dust. It is ground entirely from fresh unbleached materials, and is of a superior quality.

A. B. ALLEN, 205 Broadway, N. Y.

BOMMER'S METHOD OF MAKING MANURE.

One hundred agents are wanted immediately, to promote the general introduction of this valuable invention for the manufacture of Manure in New York, New Jersey, Virginia, Delaware, and in the six New England States. Unquestionable testimonials and responsible securities will be required for the faithful discharge of the duties of the appointment. Persons of suitable qualifications will find this both a useful and lucrative employment. Applications, if by mail, must be post paid, and directed to me at Westville, New Haven county, Connecticut.

Hundreds of testimonials from the best authorities, evince that no farmer who is sensible of the want of Manure, should remain destitute of this cheap and expeditious mode of its procurement. Any person forwarding five dollars, to the General Agents, with information of the writer's name, residence and address, shall be furnished with a copy of the method, with the right to use the same, without charge of postage.

ELI BARNETT, General Agent.

Westville, Conn., March 1, 1845.

HONEY BEES AND HIVES.

E. Townley, 124 Canal street, has the pleasure to inform the public that he has manufactured an entirely new and elegant Bee Hive, which has been awarded the first premium for several successive years, and has been found, by numbers who have them now in operation, to be the most effectual preventive against the Bee Moth of any now in use.

Bees can be taught to work in glasses of various kinds, such as tumblers, jars, globes and shades. They can be adapted to family use, either in town or country; in parlors, bedrooms, attics, yards, or where fancy dictates, with perfect safety. Information can be had at the above place as to the best manner of changing bees from one hive to another, and also of making two swarms from one. And should any cause of complaint arise, it will be immediately rectified *gratis*.

Individual rights for constructing the above hive may be obtained for $5 cash, by addressing the subscriber; all letters to be post paid. Also, rights for towns, counties, or States, will be sold at liberal prices.

Also for sale, a Treatise on the cultivation and management of Honey Bees, by the subscriber. Price, 50 cents.

a1 3t EDWARD TOWNLEY.

SHEPHERD DOGS FOR SALE.

Two very fine young Scotch Shepherd Pups can be had by applying post paid at this office. They are of the very best of the Colly kind, strong, active, and hardy, and may be trained to drive cattle as well as sheep. They are also excellent animals to watch, and among the most useful on the farm for general purposes. Price $10 each. A. B. ALLEN, New-York.

SCOTCH PLOW.

Just imported, and for sale, a very superior Scotch plow, made entirely of iron. An extra point, mould-board, &c., accompanies it. A. B. ALLEN, 205 Broadway.

DR. VAN BUREN'S RHEUMATIC EMBROCATION.

RHEUMATISM ANNIHILATED!

The proprietor of the Rheumatic Embrocation comes before the public with increased confidence in the healing virtues of his remedy; for, since he first offered it to the public, it has been tried in the worst possible and most aggravated cases, over which it has completely triumphed; in some instances, where the patient had been given up by the attending physician as incurable, and in many cases where all the remedies advertised for the cure of rheumatism had been faithfully used, without the least effect; thus proving itself superior to all other remedies ever offered to the public. The proprietor has received from various parts of the United States, and is receiving almost daily, the most flattering testimony to the curative powers of his Rheumatic Embrocation; and he feels now more justified than ever in asserting that it is a never-failing cure in all the various forms of rheumatism, chronic or inflammatory, and in all complaints of an analogous character, such as contracted tendons, stiff or weak back and joints, sprains, &c., when faithfully and perseveringly employed. He cannot occupy the necessary space in an advertisement, or he would place before the public the documentary evidence of the truth of his assertion. But though he cannot do this, he is willing at any time to show them to all who may call upon him at his principal office, No. 56 Sand street, Brooklyn, Long Island, N. Y.

Agents solicited from all parts of the United States and the Canadas, and dealt with on favorable terms. All communications must be post paid. Price $1 per bottle.

M. VAN BUREN,
1t* Sole proprietor.

CHOICE MERINO BUCKS FOR SALE.

The subscriber offers a few two year old bucks for sale, got by Mr. D. C. Collins' celebrated Rambouillet buck Grandee, out of superior pure bred Merino ewes. Price $20 to $50.

Also pure bred Merino bucks of various ages, and at different prices, according to age and quality. LEWIS G. COLLINS.

Washington, Dutchess Co., N. Y

SAXTON & MILES, 205 Broadway, N. Y.

Publish the following

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AMERICAN AGRICULTURIST.

Agriculture is the most healthful, the most useful, and the most noble employment of man.—Washington.

VOL. IV. NEW YORK, AUGUST, 1845. NO. VIII.

A. B Allen, Editor. Saxton & Miles, Publishers, 205 Broadway.

BUTTER.

We have no sympathy with those farmers who complain of hard times, and yet make no personal effort to remove them from their own shoulders. Numberless instances of neglect and bad management occur in their operations, which, if guarded against, would afford a ready and profitable sale to their products; but now, will either not sell at all, or at a price which does not at all compensate for the labor and money expended on them. Probably in no article of farm production is this more clearly manifest than in the greater proportion of butter which is made in the interior of this country, and especially at the West. The soil yields good grass, unexceptionable grass; and the cows yield good milk, unexceptionable milk; which, in its turn, yields good cream, and the *beginning* of unexceptionable butter. But the moment art steps into the completion of what nature has so happily begun, there is an end to perfection, unless it be to the perfection of blundering and mismanagement; and the whole operations of master and dairy maid, are, in the quaint phraseology of good old Tusser, "so slabbered and sost," that what might, with care and good management, have been in the highest degree palatable, is made absolutely execrable. We have repeatedly been forced to notice the wretched stuff which passes under the name of butter, found in many of our farm houses and on most of the tables in public houses in the interior,—and which has compelled us to limit our choice of eatables to dry bread and tea or coffee, rather than poison ourselves with the addition of that miserable stuff, which is equally offensive to nostril and palate, and which plentifully besmears every dish that can be spoiled by its presence.

With those who are content to use it at home, or can sell it to such of their neighbors for consumption, as can tolerate it on their premises, the loss is no greater than that of one of the good things of this life which might have been enjoyed by the same expenditure of labor, that an intolerable article is provided.

But in sending the article to market, another result follows, which touches the miserly producer in a far more tender point, than in his taste. Choice butter sent to any of the large eastern markets, will command from 15 to 20 cents per lb. at wholesale; while the wretched stuff usually sent there, is worth only the price of *grease*, for which purpose, it is bought up in large quantities at from 5 to 7 cents per lb., and sent to England for various uses. Now let us look at the statistics of this matter. The product of the dairy for Ohio and Indiana, were estimated, in the Report of the Commissioner of Patents for 1842, to be, in round numbers, $2,600,000. If we take one and a half millions of this for butter, and allow one-third of the whole quantity to be sent to market in bad condition, (and we think we are entirely within bounds, for though no states can make better butter, none certainly make worse than much of it which they export,) we have a difference of about 6 cents per lb., amounting in this case to three hundred thousand dollars, which is annually lost to these two states, from the neglect of ordinary care and attention to this one article alone.

For the proper mode of making and packing butter for a near or distant market, we refer to numerous articles on this subject, in the former volumes of the Agriculturist; and we do not hesitate to say, that they are as complete and concise as anything ever written on this interesting subject. We will now merely state here, that the first requisite is, to have all the articles in use perfectly sweet, and in the utmost state of cleanliness. Milk pails, milk pans, churns, and butter bowls, should be scalded thoroughly, and scoured before using. The second is, to work out by a dab or paddle every particle of butter-milk. Some dislike working it in cold water, but if properly managed in other respects, we do not consider this objectionable. A third requisite is, to use the very best, *perfectly pure* salt, *finely pulverized*, and have this intimately blended with the butter in sufficient quantity to make an agreeable taste. The fourth is, to have the butter, as soon as ready for packing, carefully put down in clean white-oak firkins or stone jars, crowded so closely as to fill up every part of them, and have the top carefully covered with a clean linen cloth, with salt one inch deep placed on this, and cold water enough added to make a brine. Then keep it in a cool place till ready for shipping.

Since the above was written, we have received our foreign journals of the past month, containing reports of the late proceedings of the English Agricultural Society. In these we find an article "On Preparing Butter for the London Market;" and as the good house-wife is never tired of reading subjects of this kind, we copy it into our columns, thinking she may get a hint or two from it which may prove serviceable even here in our own country. Working butter with the hand, and some other things recommended in this article, may be admissible in the cool climate of Great Britain, but should never be practised in this country.

"The following is the most approved method of making and preparing butter for the London market, and is submitted for the advantage of farmers and dairymen throughout Ireland. Butter made on this system, with care and quick dispatch, will ensure high prices and quick returns. The agent's comment on each dairy's butter, and improvement, are still going on. The best land is old pasture, as free from weeds as possible, with abundance of good water. The cows should not be heated or tormented in any way; housed at night, and fed on green food, and the pasture changed when practicable. In milking, take saltpetre in the pail, one-eighth of an ounce to 8 quarts of milk. The dairy should be perfectly clean, airy, of equal temperature (say 50°), very little light, and completely shaded from sun, by trees or otherwise; and in winter a stove may be required. Strain the milk into coolers, sweet and dry (never mix warm and cold milk), keep it from two to four days, then put the whole of the milk and cream into a clean churn, which is not to be used for any purpose, except during the time it is in operation. Boiling water to be added to raise the temperature to about 68° or 60°, if horse or water power be used. The time occupied is from one to two hours, depending on the size of the churn; but churning should not be continued beyond the proper time. After churning put the butter into two bowls or pans of pickle, made from pure water and fine-stoved salt (as common gives the butter a bad flavor). It should be well washed, and the pickle changed frequently, until all milk is extracted, working with the hand the two pieces alternately, until the grain becomes quite close and firm; when it is to be cured with the finest dry-stoved salt and sugar. The proportion to be one ounce of refined sugar to one pound of salt, to be well worked into the butter with the hand; but the quantity of curing materials will depend on the time and labor given by the dairy-woman, in working and beating the butter (after the salt and sugar are applied), which should continue until all pickle is driven out. The butts should be finished the day it is churned, and then be pressed as closely as possible into the cask. The cask should be well seasoned for some days previous, with strong pickle, frequently changed, or hot pickle; and must be strong and air-tight; the size is of no consequence, if filled and sent off in one week. If not filled at one churning, the butter is to be covered with pickle until the next; but no cask to contain more than one week's butter. If butter should, at any time, appear pale in color, after churning has commenced, a little grated carrot-juice may be put into the milk, and will not injure either milk or butter. All butter should be at the place of shipping one day prior to the steamer leaving, so as to run no risk of going forward to the agents."

STAVES.

Since the late reduction of duty in Great Britain on staves from the United States to 28s. per 50 cubic feet, they will become an article of considerable export; it is important, therefore, that they should be properly prepared for the English market. For the benefit of those farmers engaged in the stave business, we subjoin, from a circular recently received here, the principal directions to fit them for the British market.

Size.—The standard to which staves are now limited is 72 inches long, 7 inches broad, and 3 inches thick, and it is always very desirable to get the staves of this full length and breadth, length especially. By making them 72 inches long, they suit at once for the sides and ends of all puncheons for the West India trade, and also for the side of sugar hogsheads. For brewers' casks, both for the home and export trade, there is a large demand for white oak staves, 30, 37, and 47 inches long, 7 inches broad, and 1½, 2½, and 3 inches thick. The present standard thickness of Canada pipe staves, viz.: 1¾ inches, is very suitable for coopers in general, but 1 inch, 2 inches, 2¾ inches, and 3 inches, are all used, although the thick sizes are considered less valuable, and scantlings with large proportions of those in them do not take the market so well. Besides the full length of 72 inches, the only other sizes at which staves should be cut are 42 inches and 33 inches. These lengths would answer the home cooper trade generally, and suit exactly for West India casks, &c. The lengths of 30 inches to 33 inches, are also the sizes required for beef tierces; and if split at the proper thickness of an inch, or rather less, or if they were of such thickness as would split into an inch, large quantities of them might be disposed of. These are what have hitherto been called pipe staves. As regards small staves, the only length it would be worth sending is that of 42 inches. Of these there are three kinds which require to be specified: 1st, rum puncheon; 2d, molasses puncheon; 3d, sugar hogshead. Rum puncheon and molasses puncheon staves are cut 42 inches long, and should stand at least 1 inch thick in the rough state. A similar stave, for spirit casks, &c., 45 inches long, and 1¾ thick, would generally find a ready sale. Some hogshead staves are 42 inches in length and three-quarters of an inch thick. Particular attention should be paid to make them stand about an inch more than the lengths stated, to allow for working them to the net size.

For the London Market, hogshead staves, 42 inches and upwards, and pipe staves, 54 inches and upwards, are the most suitable.

Kind of Wood.—All the pipe or double staves above specified are of white oak, and also those for rum or spirit puncheons and beef tierces. Molasses puncheon staves are of red oak. For sugar hogsheads, red oak is the best stave, although both white oak and ash are used, and would sell well for the purpose.

The sizes of staves imported into Scotland are uniformly taken at the shortest, narrowest, and thinnest parts, *exclusive of sapwood.*

To Breed Males and Females.—In a recent conversation with Dr. J. V. C. Smith, of Boston, Mass., he informed us, that the late Mr. Jonathan Allen, of Pittsfield, successfully bred males or females among his Merino sheep, by cutting out the left testicle of his rams when he wanted males, and the right testicle when he wanted females. We wish some of our friends would immediately commence the same experiment with different kinds of animals, and let us know the results of it. The knowledge of any system of breeding males and females which could be generally depended on, would be of great importance to stock growers.

MR. PRENTICE'S SALE OF SHORT-HORN CATTLE.

Improved Stock Getting on its Legs Again.—The sale of Mr. Prentice's large herd of Short Horns, came off, as advertised, on the 25th of June, at his beautiful residence, Mount Hope, near Albany. The weather was very propitious, and a large and highly respectable company were present from our own, and the neighboring States, and the Canadas—few of whom we learned, came to the sale out of curiosity, but with the intention of purchasing. It will be seen below, that the prices obtained were pretty satisfactory, considering how excessively dull everything has been in this line for the past four years. This sale has settled the matter of Short-Horns, and shown the public *that they are appreciated*, and that those who will properly breed and rear them, may hereafter expect remunerating prices for so doing. Mr. Prentice deserves the gratitude of his contemporaries for the stand he has taken in this matter. He has thrown himself boldly into the breach—carried his point—and come off triumphantly. We have heard but one expression on the part of breeders on this subject, and that was, thanks to Mr. Prentice. One thing at least is settled by this sale, and that is, Short-Horns will *advance* rather than *recede* in prices for years to come; it will also have a good moral effect on other kinds of fine stock. We can now say to the farmers, cheer up—think no more of dull times—keep on in a judicious, steady course of improvement of all kinds, and you will be sure to reap a fair reward for your labors.

The arrangements for the sale were admirable. The animals were allowed to range at will in their accustomed pasture, a large park near the mansion. The cattle were in fine condition, and made a superb show as they dotted the park singly and in groups, grazing at their ease on the luxuriant grass, sipping at the clear, refreshing waters, or ruminating in the grove or beneath clumps of noble old trees. The company had the whole morning till 12 M., to examine the stock; they were then invited to an excellent collation in a grove hard by, after which the sale commenced. It was conducted by Mr. L. F. Allen, of Black Rock, assisted by Mr. Jones, of Albany, as auctioneer. The bidding was spirited, and the whole thing was over in less than two hours. The greatest competition was for those of approved milking qualities.

COWS.

Flora—8 yrs old, J. B. Nott, Guilderland	$215 00
Moss Rose—8 " old, J. W. Wheeler, Hyde Park	140 00
Catharine—6 yrs old, M. Bates, New York	105 00
Snow Ball—11 " old, E. H. Smith, Smitht'n, L.I.	110 00
Melissa—8 yrs old, W. S. Packer, Brooklyn	120 00
Cora—4 yrs old, Dr. Jas. McNaughton, Albany	125 00
Daisy 7 yrs old, do. do.	105 00
Diana—6 yrs old, J. W. Bishop, Berks. co., Mass.	155 00
Charlotte, 5 yrs. old, do. do.	190 00
Ada, 4 yrs old, R. H. Green, Winslow, Maine	170 00
Appolonia—10 yrs old, J. P. Brayton, Bethleh'm	160 00
Louisa—5 yrs old, R. H. Green, Winslow, Me.	150 00
Splendor—11 yrs old, W. S. Packer, Brooklyn	190 00
Jenny—4 yrs old, Edward H. Smith	105 00
Aurora—10 yrs old, J. B. Nott, Guilderland	145 00
Miss Smith—6 yrs old, P. W. Tuthill	80 00

HEIFERS AND HEIFER CALVES.

Caty—11 months old, W. S. Packer, Brooklyn	$100 00
Comely—4 months old, Wm. Kelly, Rhinebeck	70 00
Nun—3 years old, do. do.	110 00
Meg—1 year old do. do.	65 00
Nell—3 years old, M. Bates, New York	225 00
Betty—6 months old, Wm. Kelly, Rhinebeck	55 00
Rover—1 year old, V. P. Douw, Albany	70 00
Calf, 2 weeks old, J. H. Prentice, Brooklyn	50 00
Calf, 2 months old. W. S. Packer	45 00
Burley—1 year old, V. P. Douw, Albany	80 00
Peggy—3 years old, J. P. Brayton, Bethlehem	200 00
Peggy, 2d—4 months old, V. P. Douw, Albany	110 00
Ramble—1 year old, W. S. Packer, Brooklyn	75 00
Jilt—10 months old, Wm. Kelly, Rhinebeck	60 00
Calf, 1 month old, J. P. Walker	77 50

BULLS AND BULL CALVES.

Calf, 1 month old, W. S. Packer, Brooklyn	$40 00
Blaize—4 " old, R. H. Green, Winslow, Me.	55 00
Tyro—5 months old, J. B. Nott, Guilderland	55 00
Tecumseh—1 year old, W. S. Packer, Brooklyn	200 00
Calf, 2 weeks old, J. P. Walker	30 00
Calf, 1 month old, W. Kelly	75 00
Duke—6 " old, Gen. Kimball, Newfane, Vt.	200 00
Calf, 3 days old, J. P. Walker	25 00
Timour—11 months old, M. J. Hayes, Montreal	80 00
Fairfax—5 years old, W. S. Packer	205 00
	$4,622 50

Altogether, forty-one animals were sold from the lot on the catalogue, averaging, within a fraction of $113 each. Of the other animals, Matilda, Sally, Juda, and Esterville, were bid in by Mr. Prentice, agreeably to the terms of his advertisement; Caroline was withdrawn for want of a bid; Dutchess and a calf died; Dora was sick; and O'Connell, by motion of Mr. Stevens, seconded by a vote of the whole company, was withdrawn. This last was totally unsolicited by Mr. Prentice, but was a spontaneous movement on the part of the company present, expressive of their high satisfaction of his conduct of the sale, and a wish to compliment him with the privilege of retaining a fine animal to which he seemed much attached. For pedigrees of this herd see May number of current volume, page 166.

STABLES.—NO. 3.

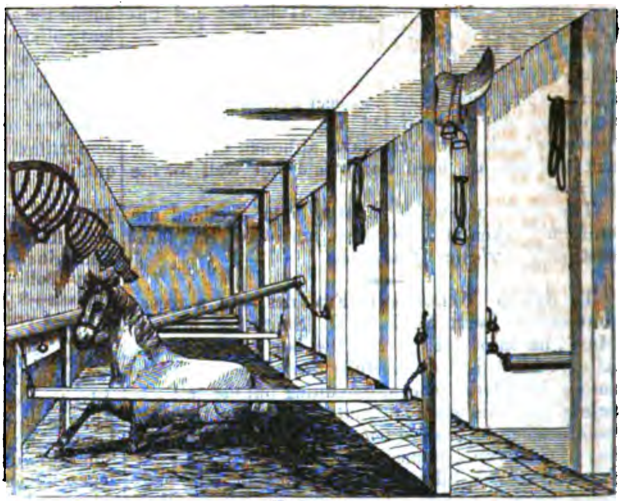

Fig. 59.

Horses should be well separated from each other, in stables. This is important and indispensible for horses in work. They must rest, that they may labor. If put into the same stall, they will neither lie down if it be small, and only one will lie at a time if it be large. They should then be separated always. This is best done by an ordinary partition, sufficiently high to prevent communication. Even tired horses will play with each other, if they can, and all the time devoted to amusement is taken from rest, and with a laboring horse this is a loss; partitions are therefore neccessary. When they are to be made, the cut of last month will give a good plan. But there are cases where partitions cannot be made. Then division poles or bales should be used. The cut (fig. 59) will show their manner of construction. These *poles* or *bales* should be of oak wood, eight feet long and three inches in diameter. Each pole should be suspended from the head and heel post, by a chain one foot in length. If the horses are disposed to bite the pole, cover it with tin, or sheet iron, near the head. The pole should be three feet to three and a half high above the floor. The attaching chains allow the pole to move when the horse turns.

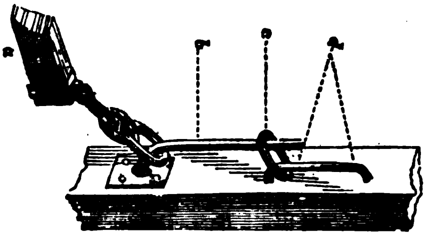

Fig. 60.

The cut (fig. 60) shows an improved method of attaching the pole. It will prevent accidents which sometimes arise from the ordinary pole, if the end next the head is attached by a hinge, so that the pole may be moved up and down at the heel end. If the horse gets under the pole, it moves up; and if he gets his leg over, it can be lowered. This is effected by *b*, a curved bolt, by which the pole is attached to the heel post. It turns round on the post. It is retained in its upright position by the ring *c*, which slides on the bracket *d*. When the pole is to be let down the ring is raised and the bolt turns and frees the pole.

The objections to poles are, that the horses do not rest perfectly; play with each other; and communicate readily contagious diseases. They should never be used if avoidable.

◆

Guano.—The excessive dry weather the present season, has been very adverse to the experiments made with guano. It requires lying in compost nearly three months, or moist weather immediately after applying it, to fully test its powers. We hope, therefore, the partial failures this year, will not deter our farmers in this vicinity from making experiments with it during a more auspicious season. Its value is unquestionable, and the application easy; besides, it is entirely free from the seeds of weeds.

A RAMBLE IN ALBANY.

After Mr. Prentice's sale of stock was over, we spent a day rambling among the breeders in Albany and its vicinity.

Farm of Mr. Sotham.—The first we called upon was Mr. Sotham, of Hereford Hall, so famous for his superb flock of Cotswold sheep and Hereford cattle. We had not been there for upwards of two years, and found that his stock had increased rapidly, and been bred with much attention to its fineness of points, and general good qualities. The farm likewise had been judiciously looked after, and the land is improving rapidly under a renovating system of cropping. Among other things, we were much interested by an experiment of paring and burning a field of about sixteen acres, for a crop of turnips. This is a method of ameliorating the condition of soils, especially those of a heavy texture, that is little understood and less practised in our country. We hope to have full particulars of it hereafter, from Mr Sotham. Mr. Ambrose Stevens has promised us a series of articles on this farm, its management, and the stock; and as he will do so much better justice to the subject than we are able to, we shall forbear saying anything more on this head at present. But what a pleasure to us would it be to ramble over the country could we always meet with such good stock and excellent management as pervades Hereford Hall. How people—and those too who are wealthy—can keep and propagate such animals as they do is a mystery to us. We would have some sort of breed around us that looked alike, even if it were nothing superior to black Galloway cattle.

Farm of Mr. Prentice.—This, too, has been brought up to a high state of fertility since we last saw it, much of which has been accomplished by waste manures—skin and fur trimmings, &c.—which were formerly thrown into the streets in Albany, and there left a disgusting nuisance, to gradually decay and perish. Mount Hope, the residence of

Mr. P., is a beautiful spot, commanding a varied and delightful view of the Hudson river and scenery for a wide distance around—one of the most agreeable objects of which is the Patroon's island lying directly in front of his farm. It is an alluvial soil, of great fertility, and being annually overflowed by the Hudson, it remains *unfenced.* We wish such of our readers as like to be cooped up in miserable bounds of stone and wood, could have a half-hour's look at this *free* island, beautifully checkered with crops of grain, roots, and grass, and unmarred by the unsightly divisions of post, rail, or stone. We are certain it would make them sick enough of the fencing system for one life.

The buildings at Mount Hope are elegant and commodious, with ornamental grounds in front of considerable extent, and a superb garden of six acres in the rear. A wide strip of natural forest trees belts it on the north, while thick thrifty hedges of hawthorn and mulberry, running in parallel lines, protect it on the west. Beyond this is an extensive arboretum, composed of every variety of forest and ornamental tree that will grow in this latitude. There are many other things deserving note here, but we have neither space nor time to record them.

Farm of Mr. Vail.—This is in Troy, six miles above Albany, and has been described pretty fully in our second volume. Since we were last there his stock has been increased considerably. The queen of his herd is Lady Barrington, sent out to him from England last October, by Mr. Bates, of Kirkleavington, in order to give a fresh cross. She is a superb cow and of a bright red color. Mr. Vail is paying much attention to the milking qualities of his stock, and all of his cows, with we believe, a single exception, stand well at the pail. He deserves great credit for being thus particular, for we must have good milkers in this quarter; further west, where they raise stock solely for their beef, this point is not of so much importance.

Mr. Z. B. Wakeman, of Herkimer, recently purchased a bull and heifer calf from this herd. They are fine animals, and we think will greatly improve the stock in this famous dairy county. We would advise Mr. W. to beware of a Dutch *boar* cross in these animals, otherwise the reputation of Mr. Vail's stock may suffer in his hands.—(Vide the June number of our current volume, at the bottom of page 184.) Mr. Verplanck, of Fishkill, has just purchased a fine Durham cow, of Mr. V., and Mr. Hays, of Montreal, a yearling heifer. The prices obtained were satisfactory, and with Mr. Prentice's late sale, shows an increasing demand for improved stock, which we would fain believe is likely to continue. It is impossible that the farmers of this country should be satisfied with standing still; the produce of our dairies is becoming too important to do so. A few years ago we exported no cheese of any consequence. Under a revision of the British tariff we sent out in 1841,—15,154 cwt.; in 1842,—14,098 cwt.; in 1843,—42,312 cwt.; in 1844, 58,115 cwt., thus quadrupling our export in three years. In addition to this, the Northern States have exported large quantities of butter, and we have not a doubt, if proper attention be paid to the improvement of stock, and the making of butter and cheese, that the exportation of these articles will be shortly doubled. We may also greatly increase our exportation of beef.

CARBONIC ACID GAS.

We notice in the Farmer's Herald (English), an inquiry as to what becomes of the large amount of carbonic acid gas, which is generated during winter in the northern hemisphere, by the combustion of coal, wood, &c., besides what is thrown off by the respiration of animals. To us the inquiry seems of easy solution, notwithstanding an analysis of the atmosphere at all times and in all places, shows the presence of about the same proportion of this gas in it; which is something less than the one-thousandth part of the whole. Supply and demand in this important ingredient of vegetable nutrition, as in all the other arrangements of the great Author of nature, are beautifully harmonized, and excess or deficiency are equally guarded against.

During the season of active vegetation, large demands are made upon the atmosphere for this gas, to supply the growing plants with their largest constituent, while comparatively little is yielded by the combustion of fuel, &c. The excess in winter and the deficiency in summer are effectually avoided by the activity of the atmosphere itself, and the constant intermingling of its varied ingredients and their rapid distribution over the entire globe. In the rigors of a northern winter, we have a preponderating northerly wind, which wafts the air at the rate of from five to fifty miles an hour towards the equator and southern hemisphere, where vegetation is in the highest state of activity, and demands large quantities of carbonic acid, which it condenses and treasures up, till combustion or decomposition sets it free, again to mix with the air, and again to form new elements of vegetable life and nutrition. During our northern summer, the currents of the atmosphere are reversed, and we then have the deficiency which would otherwise exist, made up by the prevailing breezes from the south.

But the atmosphere is so vast a store-house of this substance, that any considerable local causes operating in increasing or diminishing the supply can hardly be felt in the general result, and ages might elapse, with all the operations of nature working on one side of the balance, without prejudicially affecting the general result.

Kohl-Rhabi.—We notice considerable attention is being paid to the culture of this plant in England, for a field crop. It is said to resist frost and the drought better than turnips, and is not preyed upon so much by insects. It is of the *brassica* family, quite like a half-bred between the cabbage and turnip in its leaves—the stem swollen like a tuber, and often attaining the weight of 14 lbs. or more. As a garden vegetable it has been cultivated for some years in Great Britain, and we hope it may prove valuable as a field crop. We believe it originated in Germany, as it is much cultivated there. It is sown as early as mangel-wurzel, and may be cultivated like cabbage or turnips. We grew it one season in our garden; but it not proving equal, in our estimation, to cabbage or turnips, we gave it up. Perhaps others in the United States may be more successful. We would recommend a faithful trial of it among our farmers and gardeners.

Ramble in Connecticut and Massachusetts.—Having made a short excursion in these States the past month, we shall give some account in due time, of two or three farms we visited in our flying trip.

NEW YORK STATE AGRICULTURAL SHOW.

A Meeting of the Executive Committee of the State Agricultural Society was held at Bagg's Hotel, Utica, on the 10th July. Present:

B. P. JOHNSON, President.

H. W. Doolittle, Herkimer, E. P. Prentice, Albany, H. S. Randall, Cortland, Vice Presidents. L. Tucker, Recording Secretary. D. Lee, Corresponding Secretary. George Vail, Troy, T. S. Faxton, Utica, Maj. Kirby, Brownville, J. M. Sherwood, Auburn, George Geddes, Onondaga, Managers.

The President of the Oneida County Agricultural Society, E. Comstock, and a number of the officers and members of the Society were present at the meeting.

The following gentlemen were appointed a Committee of Arrangements for the Show:

B. P. Johnson, Rome; Alex. Walsh, Lansingburgh; J. M. Sherwood, Auburn; George Geddes, Tyler, Onondaga Co.; Luther Tucker, Albany; E. Comstock, Rome; T. S. Faxton, Utica; Spencer Kellogg, Utica.

The following gentlemen were appointed a Committee to confer with the railroad and boat companies, in relation to the transportation of stock and articles designed for exhibition:

J. M. Sherwood, Auburn; Horatio Seymour, Utica; M. D. Burnet, Syracuse; L. B. Langworthy, Rochester; Lewis F. Allen, Buffalo; George Vail, Troy; Thos. Hillhouse, Albany.

The judges for the Show were appointed, and the list will be published as soon as it shall be ascertained from the gentlemen appointed that they will serve.

The following additional premiums are to be given:

For the best corn and cob crusher, to be operated by horse power, - - - - - - -	$10 00
For the best thorough-bred stallion, 4 years old,	20 00
" 2d " " "	10 00
" best draught " "	20 00
" 2d " " "	10 00
" best fat cow or heifer "	10 00
" 2d " " "	5 00
" 3d " "	vol. of Transactions.
" best grade yearling heifer - -	5 00
" 2d " "	Colman's Tour.
" 3d " "	vol. of Transactions.
" best heifer calf "	Colman's Tour.
" " native yearling heifer - - -	5 00
" 2d " "	Colman's Tour.
" 3d " "	vol. Transactions.
" best heifer calf	Colman's Tour.

" " samples, of not less than three cheeses from each of 10 dairies in any one county, $20; 2d best $10; 3d best, $5.

A Committee on behalf of the citizens of Utica, of which his Honor, E. A. Wetmore, Mayor of the city, was chairman, waited upon the Executive Committee of the State Society. The several locations for the Show grounds, which had been selected as proper places for the Exhibition, were examined by the officers of the State Society, and they decided that the grounds on Mr. Thorn's farm, on the New Hartford turnpike, were, upon the whole, best adapted for the exhibition of the Society, and the accommodation of the owners of stock who may attend.

The spirit manifested by the citizens of Utica, was most gratifying to the officers of the Society, and gives assurance that everything desirable to make the approaching Show one of the most splendid exhibitions ever witnessed in this State, will be done so far as the citizens of Utica are concerned.

We will not for a moment doubt that the farmers of Oneida and of the adjoining counties, will present an exhibition of their stock, dairies, and domestic manufactures, and worthy, not only of Central New York, but of the Empire State.

The additional premiums offered for samples of the best ten dairies in any one county, it is believed will secure an exhibition from the best dairy counties, more extensive than has ever before been seen at the Shows of the Society.

Permit me to say to the citizens of Utica, that there is much labor to be done, to have everything in order for the Show. Your enterprise and your energy is known and appreciated. If you would excel Poughkeepsie, let me say, it will all need to be put in requisition. That it will be so, I shall not doubt, unless reluctantly convinced when our grounds shall be thrown open to the thousands who will be in attendance on the 16th and 17th of September. '

Persons desirous of becoming members of the Society, and of competing for the premiums, are requested to enter their names at the stage office of J. Butterfield & Co., adjoining the National Hotel, Genesee street, Utica. The fees for membership are $1. An Officer of the State Society.

NEW YORK FARMERS' CLUB.

Meetings will be held at the American Institute the 1st and 3d Tuesdays of each month, at 12 o'clock, M

At the first meeting last month, Mr. Meigs read some translations from the *Revue Scientifique et Industrielle*, on the subject of soiling cattle. Another, stating that a gentleman had sold to a Paris perfumer, rose-leaves, from half a hectare of land, to the amount of 1650 francs. The article was equal to any obtained in Constantinople, and might be easily cultivated in the United States.

Hon. Branch T. Archer, Gen. T. J. Green, and Mr. Rose, of Texas, were then introduced to the meeting, and Dr. Archer delivered an Address, on the advantages and capabilities of Texas. Gen. Green promised at some future meeting to make some further remarks on Texas.

Some New Zealand grass was next produced, showing a remarkably strong fibre.

A conversation now ensued on the diseased livers of western beeves. Some thought it arose from overdriving. Dr. Underhill was of opinion that nine out of ten of all western cattle were diseased in the liver.

The subject of the day being called for, Dr. Underhill made some interesting remarks on the manner of preparing the ground for turnips, ruta baga, carrots, &c. The carrot crop was recommended as excellent food for horses and horned cattle.

Superior new potatoes about seven inches in circumference, were then presented by Mr. Ross of Astoria. They were planted on the 30th of April, and thus, in about sixty days were brought to maturity *by electricity*. Mr. Ross has another battery applied to various vegetables, which has not accelerated their growth at all. This may be owing to the fact that peach trees rise above the poles which support the wires. A distance of about 60 feet between the zinc and copper plates intervenes in this battery. It is arranged just like the one which is working well.

At the second meeting, Mr. Meigs read a translated article from the French, on the products of Abyssinia.

Dr. Page, of Texas, followed up the subject of the agricultural productions of Texas, showing it to be a country of great fertility.

Mr. Ward of Arkansas exhibited three specimens of three varieties of the Arkansite—a stone, of inimitable qualities for giving edge to tools of all sorts. These specimens are not in the same condition in which they come from the quarry. I have subjected them to a process which I do not yet reveal, by which their native properties are enhanced to such a value, that some nice artists have said they are, for the purpose of giving edge to certain instruments, worth their weight in gold. The stones of various colors were exhibited to the club and very much admired. It has been stated by the best judges that those Arkansites are worth twenty times more than any oil stones in the world beside.

The regular subject, substitutes for a short crop of hay was now introduced.

Mr. Fleet—Millet has been recommended, as it ripens in a very short time—but the great difficulty is in saving its seeds from the birds. When sown later it may be a safer crop, for the birds are then mostly departed. It is a pretty good substitute for a short crop of hay—yet I have never found stock to prefer its straw to hay.

Dr. Underhill—It makes pretty good hay—but the land must be very rich, for it draws off the richness of the soil greatly; no crop more so. It ought always to be cut when in blossom, for then the saccharine matter is in the stem. If you cut it after the seed is ripe, it is then of comparatively little value. But the best substitutes for hay are roots, and fodder made from corn sown broadcast or in drills. In this way a heavy crop is cut. Plant on low grounds that are moist, and cut when the corn silks. At this season you cannot rely on a supply from showers on your uplands. Plant on the low lands. At the same time plant the turnip both white and red. Use up all your white turnips first, then take to the yellow, for they are more solid, more nutritious, and will keep perfectly till next spring.

Plant Deal's Aberdeen turnip.—It is a hybrid, formed from the yellow Aberdeen and the ruta baga You may sow these turnips until the first of August; although it is better that the Aberdeens were in the ground now. The white turnip comes a little later. The white Norfolk turnip may be sown any time these three weeks. The white-globe turnip, excellent for the table—also the white Dutch, may be sown three weeks hence. Gentlemen ought to try all kinds. Ruta baga has, for some years, run rather too much to top—but I am raising it this season. Turnips may be sown between rows of corn, but free ground is decidedly best for them.

Mr. Fleet—The Doctor should have made a distinction between cold and wet or moist soil. The latter will do well, but the former will not answer.—As to corn stalks for fodder, there is some difficulty in curing it properly.

Dr. Underhill—Lay a rail on crotches, stand up the corn stalks on both sides, leaning against the rail, and about three or four thicknesses, and they will be cured. They must not be bound together. A crop of corn stalks, sown broadcast or in drills, as late in the season as this, is greater by tons per acre than the best hay. I advise sowing three or four bushels of corn per acre broadcast. The saccharine matter in the stalks remains there until the silking of the corn takes place; then is the time to cut it, for then it is present in the stalks, but after that it rapidly disappears from the stalk, is then decomposed, and is concentrated in the grain, and forms the farina. A peck of salt thrown over each load of stalks when drawn into the barn, will preserve them, if a little too green, and the cattle will relish them the better for it.

Mr. Fleet—Some persons adopt the sweating process—first wilting and putting the corn stalks in stacks until they sweat, then spreading them out to dry.

Dr. Underhill—I propose as a subject for the next meeting—The Destruction of Grain and Fruit in the United States, by Insects, and the Preventives and Remedies. Adopted. HENRY MEIGS,
Secretary.

ELECTRICITY APPLIED TO AGRICULTURE.—Several experiments have been made in electricity in this vicinity the present season, on the growing crops; but so far as we can learn, without any decided advantage to them. Whether the disappointment in these experiments is owing to the extreme dry weather, or an improper fixture of the electrical wires or galvanic plates, we are unable to say; for certain it is, that electro-culture has been highly successful in many instances, in bringing crops forward much more rapidly than they would otherwise have been.

ST. JOHN'S DAY RYE.—Have any of our readers ever cultivated this crop in America? If so, we should be glad to hear the result of the same. It is extensively grown in Belgium, and with great success. From what we hear of this rye, it must be an excellent crop for early spring food, and soiling during a dry season. Mr. Saul says of it, in the New Farmer's Journal, "the time for sowing it is about the latter end of June or the beginning of July, and by October it will have produced a large heap of foliage fit for use. It will stand, with little change, during the winter, being cherished by the young growing foliage which shoots up early in the spring, and is covered with a thick mantle by the end of February or the beginning of March. It furnishes an abundant supply of fine green fodder, and possesses great merit from its superior sweetness, and the long time it affords its valuable food. When left for seed, it will grow from six to seven feet high.

SHEEP AND WOOL IN THE SOUTH.—We notice in an article in the South Carolinian, that Leicester lambs 14 months old, from the flock of Col. Wade, Hampton, sheared from 11½ to 13½ lbs. of wool; and that 60 head of lambs dropped the *present year*, and shorn when hot weather came on, to relieve them from the oppressive heat of summer, averaged 4 lbs. each! So much for growing wool at the South, where some folks are so stupid as to believe good sheep cannot exist!

GREAT YIELD OF WOOL.—The Merino flock of Mr. J. Speed, in the vicinity of Ithaca, averaged the past season, five pounds clean washed wool per head, for which he has been offered 40 cents per pound.

TO THE BREEDERS OF SHORT-HORN CATTLE.

Circular.—About a year ago, at the solicitation of a number of gentlemen interested in the breeding of Short-Horn cattle, I published a notice in several of the Agricultural papers of the United States, that I would get up an American Herd Book, provided my efforts should be seconded by a respectable portion of those engaged in that pursuit. Although slow in their responses, a considerable number of breeders have forwarded the pedigrees of their herds for insertion, according to the terms of my proposal. Many, however, and among them, some of the early and distinguished promoters of this branch of agricultural improvement, remain unmindful of this opportunity of thus recording their valuable stock.

A sufficient number of individuals having already contributed the pedigrees of their cattle to insure its publication, the work will proceed as soon as circumstances will permit, which will be *within three months* from this time.

I presume no arguments will be necessary with any systematic Short-Horn breeder, to convince him of the necessity and convenience of an American registry of his cattle, other than such as will suggest themselves to his own mind, and those already advanced in my two several notices to breeders already published.

In case you think proper to register your cattle in the proposed work, you will please transmit your catalogue of thorough bred animals (none other being admitted) with as little delay as possible, to me (post paid) at this place, with the registry fees accompanying them, and stating also the number of copies of the work you wish for, when published.

I will here remark, that the month of October next, *will be the latest period* at which pedigrees can be received, as the work will be put in press immediately after.

The terms for registry are as follows:

For a single animal, one dollar.

For any greater number, not exceeding ten, fifty cents each.

For a number exceeding ten, forty cents each.

The work itself not to exceed three dollars a copy.

If any gentleman of your neighborhood or acquaintance be a breeder of Short Horns, and not in receipt of this notice, you will confer a mutual favor by giving him the above information. LEWIS F. ALLEN.

Black Rock, N. Y., July, 1845.

SOWING WINTER WHEAT IN DRILLS.—We have over and over again recommended that wheat should be sowed in drills, for one gets a better crop in so doing, and it is much less likely to rust. We have usually recommended that these drills should be from six inches to one foot apart; but we are not sure, where it is especially liable to rust, that from one foot to two feet may not be better. An experiment was lately tried in Australia of sowing wheat in rows of *three* feet apart. It yielded 41 bushels to the acre, and no rust or mildew appeared in it; while, in the adjoining fields, sown broad-cast or in quite close drills, the yield was not so great, and more or less rust appeared. Will some of our wheat growers make experiments in sowing patches of wheat, side by side, this fall—some broad-cast and some in drills from six inches to three feet apart, and give us the result of their experiments next season? We need not add that these experiments should be made with the same kind of seed, sown on the same kind of soil, and treated in all other respects as nearly alike as possible.

CLEAR PORK.

IT is often asserted by those prejudiced against the Berkshire breed of swine, that they will not cut clear pork; that is, side pork for barrelling, free from lean. This is a great error, as we know from our own experience. But, to put the matter at rest, we give the following letter on this subject, from an extensive and disinterested packer in the west, addressed to the Messrs. Steddoms, of Lebanon, Ohio, and forwarded us by a friend for publication. The truth is, that the Berkshires are so round in their body, that they look fat before they really are so. People are thus freqently deceived by their appearance, and they are consequently killed too soon; and hence the mistaken opinion, that they give lean side pork. They have lean hams and shoulders only, and these are what we want.

GENTLEMEN: The 163 Berkshires, bought of you, made 101 barrels of pork; and in consequence of their being some other hogs mixed with yours (Graziers and Yorkshires), I could not tell how many barrels of clear pork there was; but I know that John Steddom's 30 hogs all made good clear pork, and all heavy but one—all full breed Berkshires. Also, out of Mr. Hollingsworth's 46 head, 34 made clear pork. I have cut pork thirteen years in succession, and have cut more than fifty thousand of as good hogs for the number as any man can cut, as I believe, and I never cut 163 as good hogs as yours. I believe them the best ever cut in the Miami Valley—the most free from lean and the least bone. You may talk about your Yorkshires and Graziers, and shift and change your breed as often as you please, and after all, you cannot get a better breed than the Berkshires. The hog that I call the best is the one that has the most meat for the least bone. JAMES HARRIS.

Waynesville, Jan., 11, 1845.

LARGE AVERAGE CLIP OF WOOL.—We have a flock of sixty-five full-bred Merino sheep, which sheared this season 304 lbs. of wool, averaging within a fraction of 4 lbs. 11 oz. per head. Twenty-three of the lot are yearlings, and averaged 4 lbs. 14 oz. per head. The average weight of fleece of bucks is over 9¼ lbs. The sheep were well washed, and the wool clean, and in good order, with all, except Protection, who sheared 11 lbs. 13 oz. of clean wool, though unwashed. If any one has sheared a better crop of wool, we would like to see it reported.

R. R. & L. G. COLLINS.

Butternuts, Otsego Co., N. Y., 7th mo. 15th, 1845.

A LARGE CROP OF WINE.—N. Longworth, Esq., of Cincinnati, Ohio, writes us, that the promise of his grape crop this year was highly flattering; and that his vine dressers estimated the wine crop from them would be at least 500 barrels. It will be seen from this, that we may ultimately be independent of Europe for our wine; and we think that the day is not distant, when the valley of the Ohio will be quite as celebrated for its vineyards as that of the Rhine, and other parts of Europe.

From the Saturday Courier.

DIRECTIONS FOR CULTIVATING CORN-STALKS, AND MAKING SUGAR.

In various portions of the country, the cultivation of corn for the manufacture of sugar continues to excite attention. The public are seeking information upon the subject, as the discovery that sugar can be made from the stalks of corn is of recent date. We take pleasure in presenting our readers any facts that may be of importance upon the subject. Dr. Naudain, of Delaware, who has had opportunities to gather knowledge upon the various experiments that have been made, presents some views which will not fail to be regarded with interest.

With regard to the culture, it is stated that corn should be planted as broom-corn is commonly planted, very close in the row, probably a stalk every three or four inches. The tillage will be the same as for broom-corn. When the young ears begin to appear, it is necessary to pluck them off carefully, and to repeat the gathering as often as necessary, so as *to prevent the formation of any grain*. Because, if grain be allowed to form, it takes all the sugar from the stalk. About the time the corn begins to harden, the making of sugar should be begun.

It is not necessary to say anything about a proper mill to crush the stalks and separate the juice, because mills of the cheapest kinds only should be employed now, until the business would fully warrant an expensive outlay. It would probably be found that the common cider mill, with plain cylindrical nuts, would be quite sufficient for the farmer who would raise a fourth or half an acre of corn for sugar, for his family, and this quantity would be quite sufficient for satisfactory experiment.

When the juice is separated from the stalk, about a table-spoonful of whitewash, made of the *best quick-lime*, and about the consistence of thick cream, should be added to each gallon of the juice, and then the boiling should commence. The scum that rises should be carefully removed; and the juice, if this process has been properly conducted, will be quite clear, nearly colorless. Then commences the process of evaporation; and when the juice has boiled down in about the proportion of eight gallons to one, the boiling will be completed, and it may be poured out into a shallow, tight wooden box to grain.

It has been ascertained, although as yet the reason is not known, that if the juice be boiled in a deep vessel, like the common cooking vessel, sugar will seldom be obtained; while, if it be done in a shallow vessel, so that the juice at the commencement of the boiling shall not be more than three to five inches deep, sugar would be obtained without difficulty. It has been ascertained, also, that the sugar from corn will not grain so readily as that from sugar-cane; and in some instances, it has remained more than a week after the boiling before the sugar was formed, and yet excellent sugar was made.

It should be particularly remembered, that the juice should be boiled as soon as separated from the stalk. It becomes acid very soon, and no sugar can be made if the juice be allowed to stand two or three hours before it is boiled. The juice will even spoil in the stalk before it is ground, if the stalks be cut off a few hours before grinding. It is necessary, then, that every part of the process should be done with the greatest despatch. The stalks should be brought to the mill as soon as cut, and ground immediately. The vessel for boiling ought to be properly filled in two hours grinding, and the process of boiling down should immediately commence, and be continued until completed.

Excellent syrup, superior to the best molasses, will be obtained by observing the above directions, and boiling five gallons of juice to one gallon.

The juice of the corn-stalk is very rich in sugar, when cultivated in the manner suggested. Tested by Beaume's sacharometer, the instrument used to measure the strength of syrups, the juice of the corn-stalk weighs 10 to 10½ degrees, which is about the weight of the best cane in the West Indies, and is richer than the juice of the cane in Louisiana, which is seldom heavier than 8½ degrees.

One gallon of juice will produce nearly 1¼ pounds of sugar; and one acre of good corn will yield, if carefully expressed, from 700 to 1000 gallons of juice.

From the South Carolinian.

I have but little information to add to the above article. My kettle holds eighty gallons, though a sixty gallon kettle might answer the purpose, but probably it would be best to procure a shallow vessel, as above recommended, for making sugar. I made three boilings before I made good syrup, not boiling down sufficiently the two first boilings. Prepare yourself with a skimmer, a gourd with a long handle will do, to remove the scum when it begins to boil, and for a short time after. Leave off skimming when you see the dark glutinous scum is pretty well removed. Also, prepare yourself with an iron ladle, with an iron handle attached to it about three feet long (which any blacksmith can make), perforated with small holes. Whoever attends the kettle must use this ladle in raising the juice with it, when likely to boil over. When the juice boils down considerably, you will see the bubbles begin to show and burst on the surface. When you see a few such bubbles, if it be your object to make syrup, I think then is the time to take it out; but if you wish the syrup to granulate, boil till the bubbles become general on the surface. You can also test it, by dipping out some syrup with a tablespoon, and when it cools sufficiently, by taking it between your thumb and forefinger; and if it inclines to rope, it is syrup, but if it will rope about an inch it will granulate. You can boil rapidly at the commencement, while the juice is thin, but as it thickens boil with more moderation. If you boil too rapidly after the bubbles begin to burst on the surface, you will certainly burn it, and it will give it a candy taste. If you cannot get lime conveniently, lye will answer the purpose. I should say, put in about half a pint of lye to every fifteen gallons of juice. Throw in the lye or whitewash made from the lime, immediately after you quit removing the glutinous scum. When you have boiled to satisfy yourself, take out the syrup and put it in some shallow vessel to cool. I am inclined to think, when the juice has been extracted from the stalks by a wood mill, that if they were chopped up and boiled in water, good vinegar could be made from them. I advise you to build a wood mill. The expense is trifling. You can get a mechanic in my neighborhood, who will build you one for twenty dollars, by furnishing him two assistant hands;

otherwise, send over a common mechanic, and after looking at mine, which is a good model, you can have one made at home. I advise you to plant your corn for experiment in bottom land (if not rich, make it rich by improvement), in drills, from four to six inches in the drill, and the drills from thirty to thirty-six inches wide. James S. Pope.

Island Ford, Edgefield Dist., S. C., Feb., 1845.

WIRE FENCES.

Wishing to make three or four miles of the cheapest, most durable, and, at the same time, sufficiently substantial fence, I would like to ascertain from the editor and correspondents of the Agriculturist, the best and most economical plan of a wire fence. I want the exactest and most minute details as to the posts, size and manner of setting; distance from each other; the least size of the wire required for cattle and horses; the number of wires effectually to secure them and sheep (no hogs or geese to be taken into the account); the manner of running and securing them on to the posts, &c., &c. Price in the New York market of *galvanized* wire, or wire, so prepared as to prevent rust, and secure as near eternal duration as possible; weight of wire to the rod, &c, &c. An early and full answer is requested. L.

The only places where we have seen iron hurdle fences in the United States, are at Mr. Woolsey's, Hellgát Neck, N. Y., and at Mr. Cushing's, Watertown, Mass. These were imported at a considerabfe cost. We are of opinion, a good article, 4½ to 5 feet nigh, and sufficiently strong to resist cattle, may be made in this country for 20 cents per foot, running measure. Coat this with coal-gas tar, with a handful of slaked lime mixed in every gallon, and the fence would last a century or more. To answer every question of our correspondent as minutely as he seems to wish, would require half a dozen cuts and a long explanation We should be glad to hear from any of our readers who can give us information in this matter, and if we must have fences we greatly prefer those of iron hurdles. They are elegant in their appearance, are seen only when close at hand, and in consequence of their great duration are much the cheapest in the end. They can also be taken up very easily, and replaced anywhere when wanted. It is the only fence which should be tolerated on a lawn or near a gentleman's house. When constructed with connected chain top, it is strong, light, graceful, and, to our eyes, highly ornamental.

Curious Facts in Grafting.—I have just visited an orchard of Mr. Jeremiah Lambertson, Flushing, L. I., and was shown a small apple tree, into which in April, 1844, thirteen grafts of different kinds were inserted, all sweet, and all ripening about the same time, in the latter part of July. On one of the grafts of the strawberry variety, of about 20 inches growth, there had grown eight fine strawberry apples. The graft had two branches, on one of which six beautiful apples hung in one cluster, on the other there were two, each nearly as large as a hen's egg.

Mr. Lambertson promises to give you at some convenient time, a description of the tree above alluded to, its age, the names of the thirteen varieties of fruit, &c., for the benefit of the readers of the Agriculturist.

A. Sherman.

EIGHTEENTH ANNUAL SHOW AND FAIR OF THE AMERICAN INSTITUTE.

The conducting of this anniversary celebration of the progress of a great nation in industry and the arts, has been confided by the Institute to the undersigned Managers.

The exhibition will be open to the public on Monday, the 6th day of October, 1845, at 12 o'clock M., at Niblo's Garden, Broadway, in the city of New York. Contributions from exhibiters will be received on Thursday, Friday, and Saturday of the previous week. To insure the most favorable locations, and the advantages of competition, the products of the manufacturer, mechanic, and artisan must be delivered and entered on the books of the Fair, on one of those days. The chance of a good location will be in favor of those who come the first and second day. Fruits, flowers, &c., form an exception. The proper time for entering them will be specified in the agricultural and horticultural circular, or notices hereafter to be issued.

Arrangements already made, and in progress, for carrying out the eighteenth celebration, are on a scale more extended and attractive than ever before; and if public favor towards this institution continues to extend and increase each year as it has during the last seventeen, means will be afforded of enlarging the value of the premiums, and thereby creating a more intense and universal competition. Several opulent and munificent individuals, desirous of making the exhibition worthy of our great emporium, and giving a fresh impulse to improvements in our country, have volunteered donations for the purpose; others have promised not only to contribute, but to use their influence to cause their friends to do the same. After reserving what discretion demands, to cover the annual current expenses of the institution, every dollar will be expended by the Managers to promote improvements in Agriculture and the Arts. It is the fixed policy of the Institute, to appropriate every dollar for the benefit of that public which has been its generous, unfailing patron.

There will be an opening address, followed by novel and interesting displays of the Pyrotechnic art.

On Thursday, the ninth day of October, a National Convention of Farmers and Gardeners, and Silk Culturists will be held. Circulars, with questions prepared, will be issued. Washington's Home Department of Agriculture, recommended by the Institute, and unanimously approved by a National Convention held last year, will again be urged. These precious interests demand extensive concert, unanimity and profound deliberation; and *the* TIME, during the great Fair—and *the* PLACE, the emporium of the western world, were, by the Convention of last year, decidedly resolved to be the best suited to accomplish the objects sought.

For the second week, has been assigned the show of cattle, horses, and other live stock, and the plowing and spading matches. Fine horses, combining size, strength, and fleetness, for wagon and carriage—healthy fat cattle and sheep, suitable for market—well trained, well matched, and powerful working cattle, and the best milch cows, will each and all command high premiums. To accommodate those interested in the cattle show, a beautiful plot of ground has been secured between Twenty-third and Twenty-fourth streets, near the intersection of Broadway and the Fifth Avenue, with commodious rooms on the premises for accommodating the committees. The plowing and spading matches will be held in New York, or its vicinity. For particulars, see agricultural circular.

The anniversary and other addresses will also be delivered in the course of the second week. The horticultural exhibition of vegetables, fruits, flowers, &c,, will be in Niblo's long promenade, and superintended by eminent horticulturists. Great varieties of rare seeds have been, the last year, scattered by the Institute over our country, with the express understanding, that a portion of their products be brought to the Fair, to swell the beauties of the display. The great saloon, and the second story of the north wing, will, as usual, be reserved for the fabrics of the factory and workshop; made of cotton, woollen, silk, and all the varieties of metals and other substances, the fruits of that genius and invention, which have commanded the admiration of the world. The first floor of the north wing of the saloon will be animated by moving machinery, propelled by our best model steam engines, to afford visible, practical evidence to all of their merits and value.

The best new and useful inventions will be objects of the highest honors. Also, establishments affording large varieties of specimens of well constructed agricultural and horticultural machines and implements; but in no case, for want of competition, or other cause, will any article be entitled to premium, if adjudged intrinsically not deserving particular commendation.

This first general appeal is made to our countrymen as a notice for preparation. Others more in detail will follow. Thousands and tens of thousands of ingenious and patriotic friends, we know, stand ready to contribute their utmost efforts to perfect and embellish every art, agreeable or useful to our Republic. Past experience convinces us, that on the coming occasion, American genius and industry, in all their numberless products, will show forth more conspicuously than ever. All classes of this great people are invited to think of our objects, and the effect of the countless specimens of new inventions and old ones improved—of improved fabrics of finer finish and lower prices, by processes unheard of before—all submitted to the examination, scrutiny, reflection, and discussion of hundreds of thousands of inquiring and enterprising freemen, for weeks, at seventeen successive anniversaries. By such means improvements must receive acceleration, and the comforts of life for the millions, multiplied, improved, and brought nearer the reach of all.

The Managers will do all that unbought zeal can do, to make this Eighteenth Celebration of American Industry and the Arts worthy of our great city, and honorable to the nation. Our most able and distinguished citizens will be invited to address the visiters on subjects embracing the solid welfare of the whole Union. To sustain our best public institutions, we have a willing population, that possess more original native capabilities for producing great results than has ever before been found on the globe; enjoying full liberty for the exertion of all their powers, both of body and intellect. By the cultivation of only one American staple, Christendom is supplied with a large proportion of her clothing. And our silk culture, if pursued with skill and confidence, may soon afford silk for as many more.

The steamboat, which is rapidly conveying knowledge, civilization, and the arts, into the remotest western prairies, and the most sterile African deserts, is emphatically a product of American genius and skill.

Let our whole people, with united zeal, energy and power, uphold and sustain all well devised means for advancing, perfecting, and perpetuating our industry, wealth, liberty, and glory.

Abonibam Chandler,
Edwd. T. Backhouse,
John Campbell,
Jas. Van Norden,
H. W. Childs,
Joseph Curtis,
Geo. Endicott,
Wm. Hall,
Joseph Torrey,
Jas. R. Smith,
Martin E. Thompson,
Isaac Fryer,
John D. Ward,
Edward Clark,
Robert Lovett,
Gurdon J. Leeds,
A. D. Frye,
T. B. Stillman,
Joseph Cowdin,
Jas. J. Mapes,
Geo. F. Barnard,
C. C. Haven,
Chas. Mapes,
Jonathan Dodge,
T. W. Harvey,
T. B. Wakeman,
Managers.

Repository of the American Institute,
New York, July 2, 1845.

TO PURGE A HORSE QUICKLY.

When medicine is administered to a horse with his bowels in a *natural* state, or costive, it will not operate in less than twenty hours, and is frequently thirty to forty in doing so. When the horse's bowels are purging, medicine will act very rapidly; this arises from the great irritability of his bowels, and purging with him is always the *result* of inflammation. On the other hand, costiveness is the *cause* of inflammation. When there is *inflammation* of the *bowels in the horse*, purgative medicine should never be given. In nine cases out of ten, when *severe*, the medicine will be *fatal*. *Palliative* treatment, not *remedial*, is to be resorted to in cases of *inflammation*. When purges are to be used, this must be borne in mind. To the horse, *fasting* and thirsty, give one to two pounds of *Glauber* salts, with plenty of *warm* water, in which has been stirred some meal. In *three* or *four hours after*, give an injection, composed of three gallons of warm water, one quart of common cheap oil of any kind, or melted lard, one quart of molasses, and half a pound of salts, all well mixed up together If the first injection does not produce purging, give a second. If the horse have *no inflammation*, give him exercise, if he has, avoid it carefully, and keep him cool. A. Stevens.

Great Milkers.—I often read in various papers of what this and the other man's cow has done. I have a cow which has given for ten days in June, from 34½ to 63 lbs. of milk per day. She is one-fourth Durham. I have a pure bred Durham heifer, which gave for some time from 41 to 44 lbs. per day; and several others about the same.

I have for sale the pure blood Mackay pigs, and the Southdown sheep, and a very likely pure blood Durham bull, which I have had with my cows three seasons. I sell him in order to change, that I may not breed in and in. Wm. Cushman.

New Braintree, Mass., July 14, 1845.

Agriculture in Scotland.—No. 10.

Farm of Mr. Cobb.—In resuming my observations upon the farming in the neighborhood of Dundee, commenced in my last, I may say that the farmers near that city are not, *generally*, so far advanced as those I have met in some other sections. They look with incredulity upon deep plowing, and when draining, many of them put the top of the stones only about one foot from the surface; thus, by their own act, rendering the use of a subsoil plow quite impossible. The most obstinate, however, are beginning to push forward, and there are some admirable examples for them in their own vicinity.

We visited the farm of Mr. Cobb, a few miles from Sir John Ogilvy's, and were much delighted by its excellent condition. This farm comprises about 500 acres, all arable, and the rotation is essentially the same as that of Sir John Ogilvy, mentioned in my last. He generally has two years of grass, however, unless he takes two oat crops, having every year about seventy acres of wheat, seventy of barley, seventy of turnips, seventy of potatoes, &c. When he takes two oat crops in succession, he has of course 140 acres of that grain. The system of management and sales is identical with that described in my last, as practised in that neighborhood. His grass crops, for instance, brought last year £12 per imperial acre, by roup or auction. The oats and barley are sold just as the leaf begins to fall, and all the risk after that is upon the purchaser The seller thrashes the grain, and carts the straw when they demand it. He calculated that the grain crops also would bring him in from £10 to £12 per acre.

Mr. Cobb has been for several years busily employed in draining, and has completed a large portion of his farm. The drains are put in thirty-three inches deep, and thirty-six feet apart. He intends in future to have them three feet in depth, being fully convinced of the importance of giving the plants a deep, wholesome soil, into which they may extend their roots in search of food, and also that it is necessary to have the top of the stones or tiles so low as not to be touched by the subsoil plow. He is subsoiling one-seventh of his farm every year, to the depth of fifteen inches, and intends to go several inches deeper the next time, considering that the full benefit of the drain can only be brought out by the subsoil plow. He says that the expense of draining is repaid with him in from two to three years. Lest any of our incredulous farmers should shake their heads at this, I will inform them that Mr. Cobb is a tenant, and paying between £1200 and £1300, or nearly $6,000 per annum of rent, and is not likely to go on with improvements that do not actually repay him and give a fair profit. He commenced farming with forty acres, for which he paid £7. 10s, or nearly $40, per acre of rent, and has worked his own way upwards. We saw a piece of wild moor, that he brought in last year by trenching three feet deep, taking out the stones, and putting in drains. This operation costs £12 per acre. The first crop, one of oats, taken off that ground, actually brought at auction, £12 per acre, thus repaying the prime cost at once.

Farming in Forfarshire.—From Dundee we went northward thirty miles, to Brechin Castle, the seat of Lord Panmure, about half a mile from the town of Brechin. Lord Panmure is the owner of immense estates in that section of the country; and with a munificence for which he has long been remarkable, on the present occasion procured the services of Professor Johnston to deliver three lectures to the Eastern Forfarshire Agricultural Association. The three were delivered respectively, at Brechin, Montrose, and Arbroath. I attended only the first, at Brechin. The audience was large and attentive. In the evening a dinner was given by Lord Panmure, at which about eighty persons, chiefly his tenantry, were present. They were a remarkably intelligent body of men, and evidently much delighted by the information they had received from Professor Johnston. The farming in Forfarshire is fast becoming very good; tile works are being erected on almost every large estate, and the introduction of the pipe tile promises to cheapen the draining very materially. Many are putting in stones, but they do not generally break them fine enough, and often bring them up too near the surface. I much regretted that other engagements would not permit me to accept of invitations which I received to visit several of the best farms in the district.

There is a large manufactory near Brechin, for the manufacture of *arrow-root* and *tapioca*, from potatoes. We had not time to see the process. It reminded me of our manufactories of Havana cigars in Connecticut, and many like instances of Yankee genius.

The effect of Professor Johnson's visit in Forfarshire was excellent; the farmers got a thorough awakening, and will not slumber again. Lord Panmure and the other leading gentlemen are much engaged, and plans are already on foot for another and a longer visit. JOHN P. NORTON.

Edinburgh, June 1, 1845.

THE STRAWBERRY PLANT.

I YESTERDAY, for the first time, met with Mr. Downing's work on fruit. I doubt not it will be a work of great value. I discover from it, that I have erroneous opinions respecting the character of the strawberry plant. I was not, like Mr. Downing, "born in a large garden, on the banks of one of the noblest rivers in America," and therefore "claim a natural right to talk about fruit." But I have resided, for 41 years, on the banks of La Belle Riviere (the Ohio), at the then village of Cincinnati, now the Queen of the West, and destined in less than half a century, to be the second city in the Union. Thirty years of that time has been devoted in part to Horticulture, and I have paid particular attention to the character of the strawberry plant. If I am wrong, I am without excuse, and should pay for my error.

It seems, according to Mr. Downing, that all strawberries in their *natural* state, have blossoms perfect in both the male and female organs. Of course, all new seedlings have perfect blossoms. But it seems, in rich soils, a *few* of the runners will become defective in the male or female organs, and be unproductive. That perfect natural plants, of all the varieties, are abundant, and you have only to select your plants from these to have abundant crops, and not cumber your ground with staminate plants My doctrine is, that in 10,000 seedlings, there would be about an equal quantity of male and female (staminate and pistillate) plants, and that it would be a strange occurrence, should a single plant be found perfect in both organs. With the exception of the white and monthly varieties, I have met with one plant only, perfect in both organs. Its fruit is small. That even an acre of Hovey's fine seedlings, will not by themselves, produce a single perfect fruit. It is time this subject was settled, for if my impressions be true, though our Queen city may be second to New York in population, she will be the only city where strawberries can be sold at a price to bring them within the reach of the poor. No cultivator will be able to take 125 bushels in one day to her market. True, I did not go to the far West, *for poverty*, I *had a plenty of that in my native town.* Still, I feel a deep interest in the poor, and would risk something to bring this delicious fruit within their reach. I propose that Mr. Downing select a dozen perfect plants, from each of the twelve following varieties described in his work. Bishop, Grove End scarlet, Hudson, Large early scarlet, Methven scarlet, Black Prince, Brewer's Emperor, Elton, Hovey's seedling, Myatt's British Queen, Myatt's pine, and Myatt's Deptford pine. Most of these are new kinds, and never seen by me. Mr. Downing has seen them, and can the better judge. Let these be sent to Mr. Jackson, an intelligent horticulturist in the vicinity of Cincinnati, who will take a pleasure in making the experiment. Mr. Downing, if he wishes, can name another person to overlook the plants. These twelve varieties Mr. Jackson will plant 100 feet separate from each other. He will leave, when growing, one plant only of each. That plant may be increased by runners. For each variety that produces a full crop of perfect fruit, I will pay $50 to Mr. Downing, to be applied as he may wish. For each kind that does not produce a full crop of perfect fruit, he is to pay me $50, which I will apply to some public charity. Should the experiment cost me $600, I shall deserve it for my temerity and ignorance. Should it cost Mr. Downing that sum, a belief in my views, and a corresponding cultivation, will reduce the price of strawberries to 4 cents per quart. Should Mr. Downing not incline to accept this proposition, I trust the President of the Massachusetts Horticultural Society, will bring the subject before them, and have the question fully settled. Mr. Hovey deems his seedlings what Mr. Downing calls a natural plant, and uniform bearer. Yet I believe a different opinion prevails at the garden of Messrs. Hovey. Mr. Hyde, an intelligent horticulturist, in the vicinity of Boston, informed Mr. Ernst, when he was in Cincinnati, that when he bought Hovey's seedling at their nursery, he was told it would not bear, except in the vicinity of other varieties.

To induce market gardeners and others to make the experiment, I would state, that I have paid particular attention to this plant for 30 years. In the fields in this region, 50 years since, the plant was abundant. Barren patches were common in the field, but I was not then aware of the cause. Of late years, I have examined them. There are staminate plants so defective in the female organs, as never to bear even a defective berry. Others are so far perfect in both organs, as to produce a half crop of fruit. The pistillate plant is so defective in the male organs, as never, except impregnated by a plant near, to produce a perfect fruit. As a general rule, where the staminate plant produces any fruit, it is the richer of the two. For the better understanding of those ignorant of botany, I am in the habit of designating them as male and female. The strawberry belongs to the class of plants that has the male and female organs in the same blossom, and I have never seen a white or monthly variety in which both organs were not perfect. Of the scarlet, I have seen one variety, and one only, that is perfect in both organs; and every blossom produces a small, high-flavored perfect fruit, unless injured by late frosts. Neither the staminate nor pistillate plant, change their character by cultivation. The partially bearing staminate plant, will bear better some seasons than others, and, I doubt not, a greater portion of pistillate organs may be forced out than usual, by forcing in hot beds. It is this character of the strawberry plant, that renders botanists slow of belief. Yet, it should not, for the discovery is not of modern date. It was noticed by some of the disciples of Linnæus, and he scolded them for it, advising them to examine closely the plant before committing themselves, as he presumed the plants they called staminate and barren, were blossoms killed by the late frosts. Duhamel and all who have written expressly on this plant, since the days of Linnæus, have advanced the same doctrine, with the exception of Harper or Harvey,* who wrote the results of the London Horticultural Society's classification of the different strawberries cultivated in England. He is silent on the subject of staminate plants, and appears to have had as little practical knowledge of the character of the plant, as he had of the Hebrew psalter.

From the prairies of Iowa, I have twice had strawberry plants sent me, with the same result. There were both staminate and pistillate plants. The fruit of the latter was very small, and never produced a single berry, unless impregnated by other plants. The staminate plant, in favorable seasons, will perfect half its blossoms; in others, but few. The fruit is a light scarlet, and where it perfects but three or four berries to the plant, the fruit will measure upwards of 4 inches. If used for impregnation, it requires constant watching. It is of such vigorous growth, that if but one plant were planted to 50 pistillate plants, it will in two years root out the others. For 20 years, I kept patches of the staminate and pistillate Hudson strawberry, in separate departments, to set new beds from, so as to be certain not to have too many barren plants. Neither bed ever produced a single fruit, unless as a matter of curiosity, I placed a single plant of the latter by the former, when a certain portion were always impregnated, and bore perfect fruit. When, in blossom, the plants may be distinguished at the distance of 20 feet. Our market gardeners can distinguish them by the stem and leaf. In raising from seed, I have had about an equal quantity of staminate and pistillate plants. Not one in 50 of the former would produce a single berry. I have raised thousands in a single year, but I never raised one of what Mr. Downing calls a *natural* plant; not one in which both organs were perfect in the same blossom. I never saw a pistillate plant, separated from all others, bear a perfect fruit. Hovey's very superior seedling, by itself, as obtained by us, in the west, from his nursery, and from

* My memory does not serve me certainly of his name.

others, never bore a perfect fruit. I saw a like bed of it in this place, with many defective berries, but not a single perfect fruit. I have seen this the case on the banks of the Ohio, where there were one-and-a-half acres of this variety. The bed had been set out the fall previous, and a press of business had prevented the gardener from putting out male plants. Had he done so in the fall, even 1 to 20, they would have had possession of near half his ground. The elder, Mr. Prince, more than 20 years since, conversed with me on this subject. He was aware of the existence of barren plants, which he designated as blind plants, and the necessity of having one blind, to 10 or 12 bearing plants; but the blind plants so speedily rooted out the bearing vines, that he was impressed with the belief, that the bearing vines produced a portion of blind plants in running. In raising seedlings, it is a matter of great importance to be able to distinguish the staminate from the pistillate plant, before running; to cut them out, as they will before the plants are fruited, root most of the pistillate plants out. Is not Mr. Downing under a mistake in describing the Hudson as a *necked* fruit? This is one of our largest, best flavored, and most productive strawberries, where male plants are interspersed. I have known it well for 50 years, in New Jersey, Philadelphia, and Ohio, but never saw one with a neck. On the contrary, the stem and hull is so much imbedded in the fruit, that it is difficult to separate the fruit with the fingers. The strawberry cultivated in England under this name, and said to have been received from New York, is described as a *necked* fruit, and I presume Mr. Downing has taken the description from English works, and not personal observation. I wish to draw his attention to it, that he may correct the error, if he be in error; for where its *pistillate* character is understood, it is the most valuable to cultivate for market. In the spring of 1844, a single wild staminate plant was brought me, from a field in Kentucky. This spring, I sent it to our Horticultural Society, with 200 perfect fruit. Separate from staminate plants, it would not have produced even an imperfect berry.

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In justice to Mr. Downing's views, I should say, I have never met with an English or Scotch gardener who would even admit the existence of plants not producing a full crop of fruit, from a defect of organs. When I have in their own gardens pointed out ten staminate to one pistillate blossom, the former all barren, and the latter with perfect fruit, they gave a shrug of the shoulders—said, they had never before noticed the difference in the character of the blossom, and that no such difference existed in Europe. Mr. Buist, the intelligent horticulturist of Philadelphia, denied my principle, certainly so far as Kean's seedling was concerned, as it yearly never failed to produce a full crop of large fruit. He showed me a full bed, then opening its blossoms, which were all pistillate plants, and not the true Kean, which is a staminate plant, and so figured in their publications, and so seen by me at Mr. Cushing's. I told him they could not produce any perfect fruit. He assured me they had never failed. A few feet distant, I found another bed, in which nearly all were staminate plants, and which he told me was the Hudson. I pointed out to him in that bed, male plants, amply sufficient to impregnate all his Kean. He then observed, to be certain, he had planted a bed of them, separate from all others. These I examined, and we agreed to be bound by the result. He wrote me one month thereafter, that the fruit in the first bed shown me, was all perfect, whilst the separate bed had not a single perfect fruit.

I imported the same variety from England, under the name of Kean's seedling. It is a hardy vine, a great bearer, the fruit large and well flavored. It is a much more valuable variety, than the genuine staminate Kean, which produces a partial crop only, of large fine fruit; and a late English writer says it is now but little cultivated, being found unproductive. It is a valuable kind for forcing, but of little value for general culture.

Newark, N. J., July 10, 1845. N. LONGWORTH.

FARMING AND CROPS AT THE WEST.

You ask me for the results of my observations on agricultural matters, in my late trip to the West. My range of observation was limited in two respects: First, on account of the route, which was mostly by water, or through such parts of Illinois and Wisconsin as were but little settled; and second, the object of my excursion was so foreign from agricultural affairs, as to leave me but little time to make inquiries relating to them.

Our first permanent landing place, after leaving Lake Erie, was Chicago, which, in its rapid growth (already numbering some 10 or 12,000 inhabitants, although but 13 years ago it contained scarcely 100); its numerous large stores and houses, all well filled; its activity and the extent of its business, gives conclusive evidence of a flourishing agriculture in the country which is tributary to it. The trade with Chicago is purely agricultural, excepting some minor branches of the mechanic arts, and the slightly artificial stimulus afforded by the previous artificial expenditure on the Illinois and Michigan canal; which is again to be resumed this season, to be completed probably in the course of another year. The best indication of the highly favorable condition of the agriculture of northern Illinois, is perhaps to be learned from the prosperity of its capital; as the country which now contributes to build up and sustain it was but a wilderness, while Chicago was only an Indian trading post.

While there, I frequently had the pleasure of meeting our friend, Mr. Wright, the zealous and indefatigable editor of the Prairie Farmer, from whom I was pleased to learn that his paper is gaining rapidly in circulation, and doing much good by introducing and sustaining modern views and improvements in the science and practice of agriculture.

We made an excursion of some 80 miles into the interior, passing down on the west side of the Des Plaines river, and crossing over at Lockport; thence on to Joliet (as it ought to be written in honor of the devoted old French Jesuit who made it his missionary home among the savages, 100 years ago); and from thence along Hickory Creek, the Yankee settlement, and northeastwardly to Chicago. Much of this route was sparsely settled and indifferently enough farmed; and much of it was thickly studded with houses and farm buildings, and under a good (*western sort of*) cultivation. The cattle had all their new coats on, and looked well, for Illinois everywhere produces a good kind of natural grass, in tolerable profusion, the evidence of its quality being manifest in the thriving condition of the animals. Of the cultivated grass we saw little that were good, owing perhaps partially to frost and drought, of which they have had their share this season; and, probably, in part to indifferent cultivation. The precise excellence and duration of artificial meadows, has probably not yet been fully tested in the prairie region; but the appearance of much of the soil, on a cursory examination, would not seem to be so well adapted to their perfection and permanence, as in the forest land of north-eastern Wisconsin.

The farmers complain much of the stunted growth of their orchards. Many of them say, their trees flourish well at first, but after three or four years of tolerable growth, they appear to be almost stationary, and yield indifferent returns for the attention bestowed upon them. I hope at some future time to see this opinion contradicted by occular demonstration.

Corn, spring wheat and oats, are the principal crops in the region through which we passed. Of these, the returns average about 30 bushels of corn, 15 of wheat, and 30 of oats, per acre, taking the seasons together. The raising of winter wheat is almost abandoned in some districts, owing to winter-killing and rust, though farther in the interior large quantities of it are raised, in connection, to a greater or less extent, with spring wheat. The last is usually sent to market mixed with the winter grain, and so almost universal is the practice, that Chicago wheat sells from 2 to 5 cents per bushel lower than Wisconsin wheat raised within 50 miles of it The Wisconsin wheat, indeed, stands on the highest ground now, as to quality and price, being fully on a par with the Milan, and the choicest specimens of Ohio grain. This is said to be owing to the greater proportion of winter wheat, for which their soil is eminently adapted; to the superior kinds which are cultivated; and to the greater care and attention bestowed by the farmers of that Territory.

Sheep husbandry is rapidly gaining favor among the farmers of Illinois, and Wisconsin, and increasing thousands of these useful animals are annually getting a foothold in the prairies, to swell the future gains of their enterprising owners. Much loss has been hitherto sustained in their first introduction on the prairies; and so far as I can learn, the most of it has occurred from excessive mismanagement and neglect. The sheep are usually purchased in Western New York, Pennsylvania, and the interior of Ohio, and entirely unaccustomed to it as they have been, are driven in dense masses from 400 to 500 miles during the heat and dust of summer, and the storms and mud of autumn, to a dreary home; not in one instance out of ten, properly provided with food and shelter or accommodations. Disease and mortality rapidly ensue, the poor sheep paying with his life, and the owner with his purse, the penalty of his gross improvidence and neglect. Sheep ought to be driven in small flocks, over good roads, before July or after August; and if a sufficient quantity of grass is not to be found on the way side, they should be supplied with it, to the full extent of their wants, in the fields on this route. A covered wagon should accompany each flock, to pick up the disabled sheep, and afford them sufficient rest till they have recruited their strength; and every care and attention which humanity or *interest* can suggest for their health and comfort, should be bestowed upon them, on their exhausting journey. When they arrive at their destination, good shelters, good food, and good shepherds, should be abundantly supplied to them. This would be necessary if indigenous to the country; how much more so, when they have just undergone a campaign, to which neither they nor their race have been accustomed!

Sheep cannot be kept on the prairies without much care, artificial food, and proper attention; and, in a false system of economy hitherto attempted by many, losses have occurred from disease and mortality in the flocks, sufficient to have made ample provision for the comfort and security of ten times the number saved. More especially do they require proper food and attention, after the first severe frosts set in, which wither and kill the natural grasses. By nibbling at the *fog* (the frost bitten, dead grass), they are inevitably subject to constipation, which a bountiful supply of roots, sulphur, &c., are alone sufficient to remove. Roots, grain, and good hay, straw, or corn stalks, pea or bean vines, are absolutely essential to the preservation of their health and thrift during the winter, any where north of 40° or 41°. In summer, the natural herbage is sufficient to sustain them in fine condition till they shall have acquired a denser population of animals, when I think it will be found necessary to stock their meadows with the best varieties of artificial grasses.

The prairies seem adapted to the usual varieties of sheep introduced into the United States; and of such are the flocks made up, according to the taste or judgment of the owners. Shepherd dogs are invaluable to the owners of flocks, both as preventives agains the small prairie wolf, which prowls around the flock but which are rapidly thinning off by the settlers and also as assistants to the shepherds in driving and herding their flocks on the open ground.

We were told on our return to Chicago, that we had not seen the best portion of their state, which we could readily enough credit; the choicest specimens lying still farther south and west. *Ever west*, to the migratory hordes of the east, lies the El Dorado of their hopes; and we have lately seen, that from the remotest western verge of Missouri, thousands are seeking it on the shores of the Pacific; and the Celestial Empire may soon be destined to become the theatre of Yankee enterprise and ambition, in their resistless course towards the setting sun.

Our next course was by steamboat to Sheboygan, where we chartered horses for an inland trip through the woods on horseback to Manitouwoc, Green Bay, and Lake Winnebago; a part of which route only had we time to accomplish. This portion of Wisconsin is a wooded country, the forest extending from Lake Michigan to Green Bay, the lower Fox River, and the northern half of the eastern shore of Winnebago, where the beautiful undulating prairie sets in, and gradually approximating to the western shore of Michigan, extends with its countless groves and variegated woodland, to the Mississippi and beyond. Manitouwoc is beautifully situated at the mouth of a river of the same name, which rises within three miles of Winnebago, and flowing through a rich limestone country of gently rolling surface, and after furnishing some of the best mill sites in Wisconsin, many of which are improved for mills of various kinds, including some tanneries, it flows into Lake Michigan, for which its ample volume and direct course into the lake form the best natural harbor to be found on its western shore. A large share of the timber is rock or sugar maple, hickory, beech, oak, poplar, elm, linden, and many beautiful groves of pines; the latter reaching from 80 to 150 feet in height. The soil is eminently adapted to every species of agriculture, wheat, and all the cereal grains, grass, roots, &c., &c. The more open prairie country on the south has received a large share of the emigration, hitherto; but as the choicest lands have already been taken there, these emigrants are gradually wending their way northward; and settlements are fast forming throughout the forests, hitherto unreclaimed since the flood, except by occasional patches of the Indian cornfields, which are now grown up to young poplars. Many of the settlers on the open lands farther south, having become wearied of the monotony of prairie life, or doubting their permanent fertility, have abandoned those natural meadows, and sought their homes among the woods at the north, where they are surrounded by the dense forests, or more open woodlands, which are more in harmony with their early associations, and the general character of American scenery.

Governors Tallmadge and Doty are settled near Lake Winnebago, about 35 miles west of Manitouwoc, and after the busy scenes of a political career, in which few have been more active or conspicuous, have retired to those peaceful occupations of rural life, where refined and cultivated taste must ever find its purest enjoyments.

The great number of pure streams furnished by innumerable springs, which everywhere yield water power in abundance, the varied surface and fertile soil, the perfect healthfulness of the climate, together with its proximity to the daily steamboat route on the great lakes, must soon render the country around Manitouwoc, among the most densely populated regions of the great west.

Returning to Cleveland, we made an excursion of some 60 miles in the interior. But this is now an old settled country, and already nearly filled; and being familiarly known, description would be superfluous. But "the oldest inhabitant" has probably never before seen the northern third of Ohio, including nearly all the Western Reserve, in so sad a plight as it exhibits this season. Nearly all the fruits are destroyed; apples, peaches, pears, and plums, by the late severe frosts; and from the same cause, accompanied by an almost unprecedented drought, the wheat, oats, and grass, will hardly pay for harvesting. Great suffering must be experienced among the stock, unless a prolonged autumn and mild winter tempers the severity of the early harvests. In the best wheat counties of northern Ohio, wheat now brings the price at the lake ports, with the addition of carriage to the interior. Happily, other parts of the west and south teem with abundant harvests, which effectually remove all apprehensions of suffering to the inhabitants.

Ohio, and the whole west, seem in the most healthy state of progression, and are fast approximating to that state of improvement and prosperity, which characterize their elder sisters at the east. Intelligence, industry, economy, and *anti-repudiation*, with the gradual introduction of domestic manufactures, will be sufficient to place them, ere long, at the summit of every reasonably ambitious aspiration.

Buffalo, July 8, 1845. R. L. A.

THE CHICASAW PLUM TREE.

Prunus Chicasa, Torry and Gray; **Prunier des Chicasas**, of the French; **Chicasa Pflaumenbaum**, of the Germans.

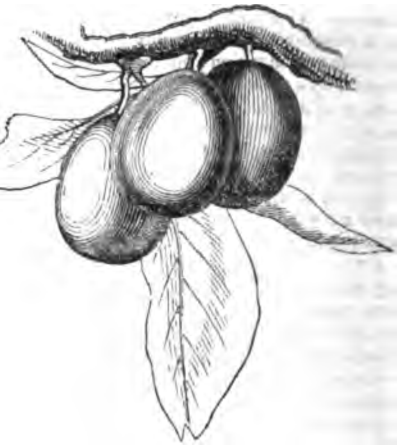


Fig. 61.

The Chicasaw plum tree, in its natural state, is a thorny shrub, growing from three to six feet in height, and when cultivated, to more than double that elevation. It is indigenous to Arkansas, Western Louisiana, and Texas, and is naturalized east of the Mississippi, as far north as Virginia. According to Michaux, it was brought to the Atlantic Southern States, and cultivated by the Chicasaw Indians; and hence it is commonly called the *Chicasaw plum*. It was introduced into Britain in 1806, and plants of it are growing in many of the European collections, as well as in American gardens and nurseries.

There is a tree of this species on the estate of Rev. E. M. Johnson, of Brooklyn, New York, which has attained a height of about twenty feet, with a trunk ten inches in diameter, is perfectly hardy, and matures its fruit every year.

The flowers of the Chicasaw plum, which put forth in April and May, are succeeded by a yellow, or yellowish-red fruit, nearly destitute of bloom, of a roundish form, half an inch or more in diameter, having a thin skin, a tender pulp, and is usually of an agreeable flavor; but, like all the species of the genus, it varies in its quality, sometimes being quite astringent and sour. This tree may be propagated from seed, by grafting, or inoculation, in a similar manner as the common plum. D'Jay Browne.

New York, July 12, 1845.

Soliciting Subscriptions for Agricultural Papers.—On this subject one of our travelling agents thus graphically writes us: A few things I have learned since I commenced asking subscriptions for your paper. First, not to call at a house where I see the fences, bars, and gates prostrate; barns and sheds wanting repairs; cattle standing about the house and way-side; wood-pile wanting; and glass broken from the windows. However good the soil, or rich the owner may be in acres, I am sure he is too sluggish and slovenly to read, or care to know much that does not comport with his notions of personal ease.

Secondly—If I chance to be deceived in the outside, and knock for admittance, not to urge the necessity and advantage of useful reading in a family, if, upon entering, I find the house in extra disorder—the mistress of it ordering one child to sit down, another to stand along, or clean that chair, and let the gentleman sit down; or the water-pail, the broom, and mop in the same corner; or the woman with uncombed head, gown gaping open, shoes slip-shod, or an apron over her shoulders, instead of being in its proper place; or if, upon addressing the master of the house, the wife answers first positively.

Thirdly—I never go in where I find a parcel of rubbish, or tubs and pails, or sundry other things about the front door-yard. As a general thing, where the garden is uncultivated the mind is also, and if there is not a taste for neatness and economy about the house and yard, there is none for improvement in knowledge and wisdom.

Fourthly—Here and there we find one who is tired of being asked to subscribe; who will shut the door rather hard and unceremoniously in your face, with a broad, "No—I don't want any of your papers;" or the maid being instructed says, "The lady isn't at home; or, in going to carry your address, only steps behind the next door, and returns saying, "The lady is engaged, and can't attend to looking at the paper; perhaps you may call again," &c., &c.

TIMBER MEASURING

The usual mode of measuring round timber is to take the girth of a regularly tapering tree in the middle, and consider it as its mean girth throughout; then to call one-fourth of this girth the side of the log when squared; a deduction of one-twelfth or often one-tenth of the whole girth is sometimes made as an allowance for the thickness of the bark; then one-fourth of the girth in inches, is multiplied by itself, and the product by the length of the log in feet, and the last product is then divided by 144, the result of which is presumed to be the cubic contents of the log when squared, in feet. But it is no such thing. Although it is no easy matter to do away with an old and established, though erroneous custom, it may be well to show in a distinct manner, how these errors may be avoided, and put it in the power of both the buyer and the seller to adopt the true method at their pleasure.

Let us take, for instance, a round log of timber 60 feet long, 54 inches in girth at one end, 18 inches at the other, and 86 inches in the middle. Now, by the usual method, one-fourth of 36 is 9, which, multiplied by itself, gives 81; this multiplied by 60 gives 4860, which divided by 144, gives 33¾ feet, the presumed contents of the log when squared. This method may be illustrated by the adjoining figure, the shadowed segments of which, show the parts that would be cut off by the axe in squaring, and is obviously to the advantage of the seller; for the four triangles occasioned by the deficiency of the squaring, are included and paid for. And, besides, the buyer often sustains another loss by an excess of bark, or by the saw-dust, when the log is converted into joists or scantlings.

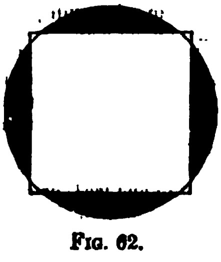


Fig. 62.

Every tapering tree is the frustrum of a cone, whether it tapers more or less; and if squared, it is the frustrum of a pyramid. Now, what mathematician would think of taking the middle of the frustrum of a cone or that of a pyramid, and calling it its mean girth or mean area? The great difficulty, in practice, in determining the true contents, of either of these figures, is for the want of an easy and concise rule. For a substitute, I will offer the following, which will apply equally true to all regularly tapering bodies, whether their ends be round, square, triangular, or any other figure:—

To the area of each end of the body, add four times the area of its middle; multiply the sum by one-sixth of its length, and the product will be the true contents.

In practice, every stick of timber should either be estimated as a regular four-sided prism, or as the frustrum of a pyramid; and in order to know the greatest square that can be formed out of a circle of a given diameter or girth, observe the following rule:

Multiply the diameter by the decimal .7071, or the girth by .2251, and either of the products will be the side of the stick when squared.

Example. What is the greatest quantity of square timber, in one stick, that can be hewn out of a log 60 feet long, 4½ feet in girth at one end, 1½ feet at the other, and 3 feet in the middle? The girth 4.5 feet multiplied by .2251 gives 1.01295, the dimensions of the sides in feet and decimals at the largest end; this number multiplied by itself gives 1.026 feet, the area of the largest end. The girth 1.5 multiplied by .2251 gives .33765, the dimensions of the sides in the decimal of a foot, at the smallest end; this number multiplied by itself gives .114 of a foot, the area of the smallest end. The girth 3 feet multiplied by .2251 gives .6753, the dimensions of the sides in the decimal of a foot, in the middle; this number multiplied by itself gives .456 of a foot, the transverse area of the log in the middle. The area of the middle multiplied by 4 gives 1.824, which being added to .114 and 1.026 is equal to 2.964; this number multiplied by one-sixth of the length of the log gives 29.64 feet, the cubic contents sought. It will be observed, that a log of the same dimensions as the above, estimated by the usual method, will contain 33¾ cubic feet, which is 4·11 feet in favor of the seller.

In determining the length of the side of a stick of timber to be cut out of a round log, two decimal figures will be sufficiently near to multiply by, for practice, which will render the operation much less tedious.

New York, July 4, 1845. B.

STILL-SLOP FEED INCREASES THE GROWTH OF WOOL.

I am in the midst of sheep-shearing—later than I ever sheared before. My still-slop flock are turning out better fleeces than I ever before sheared. One ewe's fleece, of good fine wool, weighed 5 lbs., and several, 4½ lbs., and one yearling, 3½ lbs. I have not yet sheared my bucks, some of which will turn out 9 or 10 lbs. of good wool. The flock fed on still-slops this year, fell short in their previous shearing of an average of 2¼ lbs. We think they will now average 3¼ lbs. this year, making a gain of about 1lb. per head; a result so satisfactory, that I shall follow it up as long as I can have convenient access to the slops. I apprehended that the effect of making my ewes so fat would be destructive to the lambs. On the contrary, though the lambs were rather small, they have thriven wonderfully. The ewes having great abundance of milk, the lambs have the full benefit of it. The difference in the weight of the fleeces will more than pay all extra expense and trouble in procuring the slops. I have had no loss in wintering, and have a superior lot of lambs.

E. Kirby.

Brownville, N. Y., June 15, 1845.

WASTE MANURES.

I am much surprised to see so much waste of manures as there is amongst the middling class of farmers, in almost all parts of the country. Instead of so constructing barn yards as to hold the urine and the juices of manure, or making small drains to conduct and spread it over a large surface of land, in many places it is allowed to run into the ditch by the road side, and thence be conducted into the brooks near by. Now I am fully in the faith that small brooks and springs, or water from the road during rain storms or showers, conducted by small ditches along the high ground upon almost any soil, especially in the summer season, where land generally begins to dry, and upon dry sandy or gravelly soil at all seasons of the year, would double the crop of grass. I remember once seeing the effects of pure water spread upon a side hill, by means of troughs from a cistern, at the house of a gentleman who had proved the worth of barn-yard waste, as he called it, also from turning a small brook over his mowing land in dry weather. He brought water from a spring to his house, back of which the land was poor, and descending from it. He built a large cistern to contain the surplus water, which when full would let out and conduct it by means of small troughs over this side hill land, and in one season more than doubled his crop; and after one or two seasons cut as much grass as could well be dried on the ground. Almost all farms have small vales where water runs at least some part of the season, which might be conducted along higher ground to good advantage. I wish any man who can, would just try the experiment.

Another very profitable and cheap way of manuring dry, worn-out lands is, to sow clover, and plow in a green crop. I have seen poor pine plain land brought up in this way. Clover may be made to take root and to grow in almost any dry soil by putting on with the seed a few bushels of house ashes, plaster, or lime. Leached ashes will have the same effect, only put on more of them. A mixture of leeched ashes and lime or plaster operates well. I once sowed a piece of sandy land in this way, with southern, or early clover, as it is called—put on about ten bushels of house ashes per acre. The first growth of clover I cut in June, and the second when well gone to seed I turned under and rolled down smooth, dragged it with a light harrow, put on more grass seed and rye, and again rolled the field smooth. The next crop was as heavy as could well be dried on the ground. Wet or clay soil should not be rolled unless when dry and lumpy.

Another fault may be found with farmers generally. They do not put on grass seed enough. If the land is poor the grass will not spread to cover the ground unless the seed is put on thick; and again, if the land is rich and the quantity of seed on the ground small, the grass must be coarse and of bad quality; whereas, if you put on plenty of seed, your grass will be fine and of good quality, and worth one-third more than the coarse. Wet or clay soils when plowed should be manured with coarse manure, such as straw, corn-stalks, and litter from horse-barns. I have seen whole straw dropped straightways in the furrow by a boy who followed the plow, which had a wonderful effect upon the after crops, lasting much longer than finer manure. Indeed I am of the opinion that one ton of straw will do more good in this way upon heavy ground, than one and a half tons when rotted or made into compost.

Moist grass lands may be best improved by spreading fine compost upon the grass—what I call giving my grass land a top dressing. I have in this way, with about ten loads per acre, more than doubled my grass crop upon my moist lands; and again, by putting up small temporary barns that will hold about 4 tons of hay, and manuring them every two years, have, by feeding to sheep over the field, or by carrying it a great distance from the barn, especially on poor knolls and side hills, near the top, found benefit I am careful to take up all manure left near the barn, and carry it off in the spring. I think that the urine from my sheep is worth nearly as much to my land as the manure. I cannot account for the rapid improvement in my grass in any other way, as 4 tons of hay fed out in my yard will not make more than 4 loads of good manure; which will not go one quarter as far over the same ground that my sheep make good every year.

E. P.

Morristown, N. J.

A PRODUCTIVE COW.

I have a cow, now eleven years old, that calved about the middle of January. The calf I fattened in the following manner: The first week, gave it one teat of the cow; the second, gave it two; the third, and after, not quite three. I sold the calf for almost $6; selling milk in the mean time to the amount of $1 75; and since that time I have realized between $14 and $15 for milk sold, besides what I used in my own family, consisting of eight persons, making the income from my cow, thus far, nearly $28. Milk is worth four cents a quart. The cow is fat, and messed every day.

Query—as this cow yields the profit of two ordinary ones, is it not the better way for all farmers to keep fewer cows, and *keep those few better*. It costs only one-eighth, or one-quarter more to keep a cow fat, than what will just keep one in passing order, such as the majority will average.

Young cattle, too, if well kept, and not allowed to fall away in winter, will be as heavy at three years old, as those kept in the ordinary manner at four years old. Now there is a saving of one year's feed, and interest on the value of the animal. The only question to settle now is, which costs most, the little extra care and feed, or one year's keeping and use of money the animal would bring, and insurance on its life.

T.

Hackensack, N. J.

ANSWERS TO SHEEP INQUIRIES.

In your May number, you propounded several inquiries in regard to sheep, to be answered by such of your readers or others as are owners of good sheep. The answers are intended for the general good. I read your excellent journal with great interest, for the *honest-straightforwardness* of its articles. No journal in the land has sown broad-cast over it so many able and valuable articles on Sheep Husbandry as yours, and I am happy to see it pursuing the "even tenor of its way." Some of your readers in Vermont, last year felt that much of the language of Examiner was badly chosen, and disapproved of his attack, upon men who had done nothing to offend him. I was of that number. But Examiner's papers, however unjust to some, and severe upon others they may have been, will be the means of bringing to light the interesting and important fact, that there are a few small flocks in the country of *pure breed Merino sheep*, which have escaped deterioration by crossing with inferior races. The cold north has an interest in knowing this truth, which is of great moment to her pecuniary concerns; and the whole country has an interest in knowing it. The light-fleeced system must be abandoned if we would prosper, and we must return to the strong constitutioned and hardy, heavy-wooled Merino. I thank Examiner, then, for his papers, in which were much truth and much error, and many statements which must be received with many grains of allowance. I hold not the editor of the Agriculturist at all responsible for them. They are the errors of an honest, earnest writer, I doubt not, and you have too much magnanimity to be offended at my honest statement of my impressions. I have occupied the editorial tripod myself, in a city print, and I know something of the trials and discomforts of an editor, when he is blamed for that which he has not done; and I can truly say, that I have admired the high-minded course of your journal. Excuse this digression. I will answer your inquiries without naming them, by simply referring to their numbers.

1. I am the owner of more than 200 *pure full blood Merino sheep*. They are nearly equally divided between Guadaloupes and Paulars—the last so called. But I doubt whether there is a pure Paular in the Union. Those called Paulars in this part of the country are probably crosses of the Spanish races imported by Consul Jarvis and Mr. Livingston. Thirty-three of these last named, with their lambs, are pure Paulars, if there are any in the country. They were purchased of J. J. Bailey, Esq., of Newport, R. I., who says that they were of a race imported by Jarvis and Cuff, and shipped to Rhode-Island by Capt. James De Wolf, late of Bristol; that they were taken from the ship to the farm on which he now resides, and that they have never been crossed with any other race. Their form, shape, size, &c., make them appear very much like the pure Guadaloupe; but an examination of their wool, shows them to be a distinct and different Spanish race. They bear strong external and internal evidence of being pure Spanish sheep; and perhaps they may be what they are said to be—pure Paulars. Be that as it may, they are very extraordinary sheep. The Guadaloupes are a very handsome, long woolled, hardy, large sized sheep, more active and less docile than the Paulars, but of greater strength than any sheep I have ever seen. It takes a *man* to handle them They are, however, perfectly quiet in pasture. They are sheep of surpassing excellence, imported by Mr. Livingston.

2. Of the change produced by acclimation and breeding in this country, I cannot speak with much confidence. I feel assured, however, that we have improved upon the Spaniards, and that no Spanish sheep can be compared to ours without suffering in the comparison. At present, all the sheep I have are remarkable for constitution, strength, size, clean wool, long staple, and heavy fleeces. It is wool; not gum, yolk, oil, or dirt—but wool, that my sheep yield. It is as clean as can be found anywhere; soft, fine, and glossy. I should like to have you examine it. I think you would pronounce it of a most desirable grade, and very profitable to growers and manufacturers.

3. My sheep are fed on grass in summer, and hay in winter, with but little besides. I take care, however, to have the best of hay, cut when rather green, with as little sun as possible—but well cured; *and always fed out under sheds, well fitted with racks* for sheep. I strive to have all my sheep under cover all winter, except in the most pleasant weather. Many have expressed their surprise at the number I keep on the hay I feed out, and at the good condition they are always in. The secret is told above.

4. My sheep bring their first lambs at 2 and 3 years old, and will rear 95 per cent. or more, of all the lambs yeaned. I wean them first of September.

5. No full bloods are killed for mutton.

6. My sheep averaged 5 lbs. and nearly 1 oz., each. Of the 207 fleeces, weighing in all 1,044 lbs., more than one-half were taken from yearlings. All my sheep were very thoroughly washed—90 ewes have lambs by their sides. If I were to classify my sheep, the shearing might be stated as follows:

3	Ewes sheared	7	lbs. and upwards	each.
12	" from	6 to 7	"	"
46	" "	5 to 6	"	"
88	" "	4 to 5	"	"
33	" "	3½ to 4	"	"

The balance went between 2 and 3½ lbs. Considering that more than half were yearlings, kept without a particle of grain, I think the average yield a large one. The shearers said it was the cleanest wool they ever sheared.

My stock bucks sheared as follows:

1	yearling Paular,	10 lbs.	8 oz.
1	" "	8 lbs.	10 oz.
1	" Guadaloupe	7 lbs.	4 oz.
1	two-year old "	8 lbs.	8 oz.
1	" Paular	8 lbs.	8 oz.

All these sheep were washed in a swiftly running stream, in the most thorough manner. They were sheared in the middle of a sunny day, and weighed in the presence of a barn full of neighbors. The first buck fleece named is very extraordinary. The sheep was 14 months and 8 days old when he was shorn; and the first part of the last winter he did not do well at all. He yielded this fleece without extra keep, and had no grain till near the close of winter.

7. Wool unsold as yet.

8. My sheep consume about the least amount of feed I ever knew any to consume—easily kept.

9. No diseases have ever been in the flock.

Thus I have gone through with your inquiries.

My sheep sell readily for $10 to $50 each. I have been offered $100 for the first-named yearling buck, and $50 for the second-named. My Guadaloupes came from Enfield and Lebanon, New Hampshire. A part of my heaviest woolled sheep came from Merrill Bingham's flock of Cornwall, the heaviest ewes being from his; a part from the Cutting flock in Shoreham; a part from M. W. C. Wright's flock, same place; and a part from A. L. Bingham's flock, Cornwall. L. C. BINGHAM.

Williston, Vt., July 14, 1845.

We are much obliged to our correspondent for his clear and direct answers to our inquiries, and hope others now will be tempted to follow his good example. He certainly has a most extraordinary flock of sheep. We have samples of wool of Mr. Merrill Bingham's flock alluded to above, which are very fine of their kind, soft in their staple and uncommonly long.

CULTURE OF RICE IN THE PHILIPPINE ISLANDS.

RICE is, perhaps, of their agricultural products, the article upon which the inhabitants of the Philippine Islands most depend for food and profit; of this they have several different varieties, which the natives distinguish by their size and the shape of the grain: the birnambang, lamuyo, malagequit, bontot-cabayo, dumali, quinanda, bolohan, and tangi. The three first are aquatic; the five latter upland varieties. They each have their peculiar uses. The dumali is the early variety; it ripens in three months from planting, from which circumstance it derives its name: it is raised exclusively on the uplands. Although much esteemed, it is not extensively cultivated, as the birds and insects destroy a large part of the crop.

The malagequit is very much prized, and used for making sweet and fancy dishes; it becomes exceedingly glutinous, for which reason it is used in making whitewash, which it is said to cause to become of a brilliant white, and to withstand the weather. This variety is not, however, believed to be wholesome. There is also a variety of this last species which is used as food for horses, and supposed to be a remedy and preventive against worms.

The rice grounds or fields are laid out in squares, and surrounded by embankments, to retain the water of the rains or streams. After the rains have fallen in sufficient quantities to saturate the ground, a seed-bed is generally planted in one corner of the field, in which the rice is sown broadcast, about the month of June. The heavy rains take place in August, when the fields are plowed, and are soon filled with water. The young plants are about this time taken from the seed-bed, their tops and roots trimmed, and then planted in the field by making holes in the ground with the fingers and placing four or five sprouts in each of them; in this tedious labor the poor women are employed, whilst the males are lounging in their houses or in the shade of the trees.

The harvest for the aquatic rice begins in December. It is reaped with small sickles, peculiar to the country, called yatap; to the back of these a small stick is fastened, by which they are held, and the stalk is forced upon it and cut. The spikes of rice are cut with this implement, one by one. In this operation, men, women, and children all take part.

The upland rice requires much more care and labor in its cultivation. The land must be plowed three or four times, and all the turf and lumps well broken up by the harrow.

During its growth it requires to be weeded two or three times, to keep the weeds from choking the crop. The seed is sown broadcast in May. This kind of rice is harvested in November, and to collect the crop is still more tedious than in the other case, for it is always gathered earlier, and never reaped, in consequence of the grain not adhering to the ear. If it were gathered in any other way, the loss by transportation on the backs of buffaloes and horses, without any covering to the sheaf, would be so great as to dissipate a great portion of the crop.

It appears almost incredible that any people can remain in ignorance of a way of preventing so extravagant and wasteful a mode of harvesting. The government has been requested to prohibit it on account of the great expense it gives rise to; but whether any steps have ever been taken in the matter I did not learn. It is said that not unfrequently a third part of the crop is lost, in consequence of the scarcity of laborers; while those who are disengaged will refuse to work, unless they receive one-third, and even one-half of the crop, to be delivered free of expense at their houses. This the planters are often obliged to give, or lose the whole crop. Nay, unless the harvest is a good one, reapers are very unwilling to engage to take it even on these terms, and the entire crop is lost. The laborers, during the time of harvest, are supported by the planter, who is during that time exposed to great vexation, if not losses. The reapers are for the most part composed of the idle and vicious part of the population, who go abroad over the country to engage themselves in this employment, which affords a livelihood to the poorer classes; for the different periods at which the varieties of rice are planted and harvested, gives them work during a large portion of the year.

After the rice is harvested, there are different modes of treating it. Some of the proprietors take it home, where it is thrown into heaps, and left until it is desirable to separate it from the straw, when it is trodden out by men and women with their bare feet. For this operation, they usually receive another fifth of the rice.

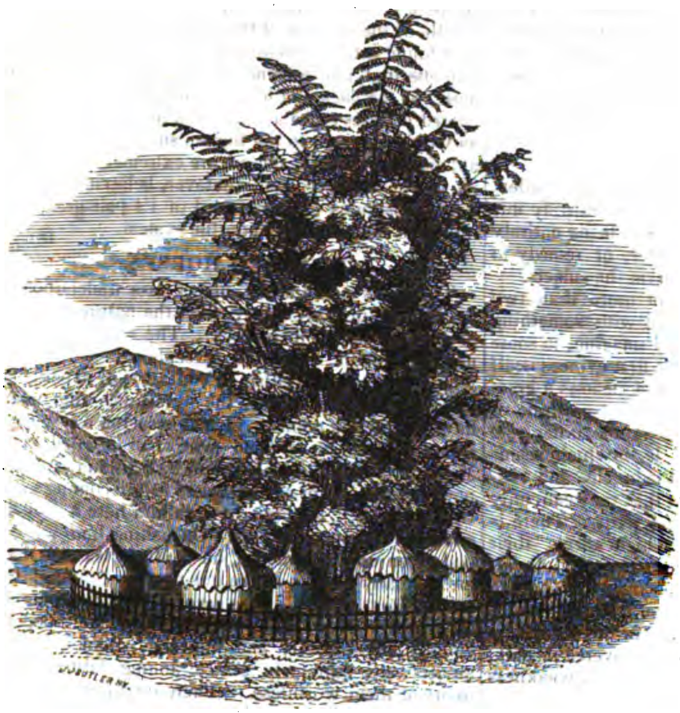
Others stack it in a wet and green state, which subjects it to heat, from which cause the grain contracts a dark color, and an unpleasant taste and smell. The natives, however, impute these defects to the wetness of the season.

The crop of both the low and upland rice, is usually from thirty to fifty for one: this is on old land; but on that which is newly cleared, or which has never been cultivated, the yield is far beyond this. In some soils of the latter description, it is said that for a chupa (seven cubic inches) planted, the yield has been a caban. The former is the two-hundred-and-eighth part of the latter. This is not the only advantage gained in planting rich lands, but the saving of labor is equally great; for all that is required is to make a hole with the fingers, and place three or four grains in it. The upland rice requires but little water, and is never irrigated.

The cultivator in the Philippine Islands is always enabled to secure plenty of manure; for vegetation is so luxuriant that by pulling the weeds and laying them with earth, a good stock is quickly obtained with which to cover his fields. Thus, although the growth is so rank as to cause him labor, yet in this hot climate its decay is equally rapid, which tends to make his labors more successful.

The rice-stacks form a picturesque object on the field; they are generally placed around or near a growth of bamboo, whose tall, graceful, and feathery outline is of itself a beautiful object, but connected as it is often seen with the returns of the harvest, it furnishes an additional source of gratification.

STACKING RICE, LUZON.—FIG. 63.



The different kinds of rice, and especially the upland, would no doubt be an acquisition to our country. At the time we were at Manilla, it was not thought feasible to pack it, for it had just been reaped, and was so green that it would not have kept. Although rice is a very prolific crop, yet it is subject to many casualties, from the locusts and other insects that devour it; the drought at other times affects it, particularly the aquatic varieties. There is a use to which the rice is applied here, which was new to us, namely, as a substitute for razors; by using two grains of it between the fingers, they nip the beard, or extract it from the chin and face.—*Narrative of the U. S. Exploring Expedition.*

IMPROVED STOCK IN MISSISSIPPI.

Sheep.—My general plan for breeding sheep for some years, for plantation use, has been to cross the Bakewell (as we call them) on the Southdowns. I find that the produce is very hardy, of early maturity, easily fatted, and yields about eight pounds per head of medium wool, such as we require for family use, and worth in this market from twenty-five to thirty-three cents per pound. In addition to this, the mutton commands a better price in our market, and the carcass is at least a third heavier than the Saxony or Merino. I have imported several Bakewell and Southdown sheep from England, but consider the risk and expense of doing this hereafter as unnecessary, as I feel confident that as good stock may be now had in this country. Indeed, my last importation has not improved my stock at all.

Another plan in breeding with me is to select a portion of my coarse wool ewes, and put them to the Southdown ram, and the fine wool ewes to a Bakewell. In this way I get a heavy crop of good wool, and the best of mutton. For domestic purposes we do not want better wool at the South, and as to the mutton, the bare sight of it would make the mouth of even a London alderman drip like a fresh-tapped sugar-maple tree in February.

In selecting the rams ordered, I wish you to obtain those of good size, fine compact forms, heavy quarters, long wool, &c., &c.

Cattle.—My experiment with Durhams has not been successful. I have imported from England at high prices; ransacked Kentucky, Ohio, and Tennessee, for the best blood, and taken great pains with them when procured. The hot sun and coarse grass of the South do not suit them. They soon become delicate and unhealthy, and, compared with our native stock, very unprofitable. We want well-shaded pastures of rich, soft grass, running water, and such attention as can only be given by those who are *farmers* and not *planters*. Then they would succeed, and do well; but as nobody in this country is situated to treat them in this way, it is folly to attempt anything beyond the half-bloods, which, crossed upon the large Choctaw cows, make good milkers and fine beef. Go one step beyond this, and they become nearly worthless. Such is my experience. In the hands of more enterprising agriculturists they may do better; but I doubt the practicability of breeding them in this climate. M.

Mississippi, June, 1845.

FARMERS AND MECHANICS IN MISSISSIPPI.—I wish that more of your northern farmers and mechanics could be induced to settle among us. We are about one hundred years behind you in improvement This could be made a splendid country, if there were more of the northern enterprise here. There is no doubt in my mind but the sickness of this climate is caused in a great measure by the manner of living, and exposure to the sun. I know persons here that have never had a fever. We want good mechanics —men of steady habits, &c. We have a number here, but there is too much dissipation and uncertainty among them. Land is very cheap, and thousands of acres that could be purchased. If they are opposed to slavery, they need not have any here unless they wish it. Persons travelling here should leave the river and cities, and mix among the farmers and country folks, if they wish to form correct opinions of the South. We have as fine society here as I ever found anywhere, and more hospitable people I never saw.

Centreville, Miss, *July* 1, 1845. E. J. C.

DISEASED SWINE.

Having suffered some inconvenience, and considerable loss by a disease among my swine, entirely unlike anything I have before seen, and being entirely ignorant what medicine to administer, or remedy to apply, I am induced to address you on the subject.

My old hogs, and even pigs not more than two months old, have all been attacked with something like the staggers, though different, I imagine, in some particulars, from that disease. It first evinces itself by a weakness in the loins, which occasions a great difficulty in their walking. In the course of one or two days, a hard swelling is seen on the outer side of the ancle joints of both hind legs, which seems to contract the muscles below the ancle, and renders their feet entirely useless, so that they can only move, except they drag their hind parts. There is also a film over their eyes, which affects their sight, though it is not entirely destroyed. In all other parts and respects they appear as usual, having a good appetite till within a few hours of their death, which in some takes place in two or three days, in others, many weeks. Some have recovered in part; but they are ever afterward troubled with a weakness in the loins, and a stiffness in the ancles.

C. L. Brayton.

St. Lucie, *E. F.*, *June* 17, 1845.

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The above disease we think proceeds from the kidney worm, or an affection of the kidneys. It is very rare that it can be entirely cured; our correspondent must therefore endeavor to prevent it. Keeping swine in close pens or yards, particularly in a hot climate, is injurious, and, if possible, they should always have a range of a few acres of enclosure, where there are thick shade trees and running water. If these are not to be obtained, cheap shelter from the sun must be made, and water in abundance supplied for drink, together with a load of charcoal or chunks of rotten wood, to eat as they please. If there be no grass in the pasture, a little green food of any kind, should be daily given them, when not fatting, such as cut grass, clover, corn stalks, or vegetables, of any kind, which are as easily raised at the South, in their season, as at the North. This treatment will prevent all diseases we know of, except that of the kidneys. To prevent this, a pint to a quart of lye per week, should be given in the food of each animal according to its size or age, if the disease is apprehended. If not, a dose of this kind once a fortnight or month, will answer. Half this quantity of ashes will answer the same purpose as lye. A tea-spoonful or two of saltpetre is also very good. Corn may be soaked in lye, and then fed to swine; but they must be pretty hungry before they will eat it.

When attacked by the kidney worm, or disease as above described by our correspondent, dose the first day with lye, ashes, or saltpetre, as here stated, repeating daily, till cured, only about one-quarter the first day's prescription. If the animal stales profusely, reduce the lye and saltpetre to one-half or one-fourth of the amount of this prescription. We have also found a table-spoonful to a gill of spirits turpentine effectual, and rubbing the same quantity, or even more, on the back and loins. Calomel is often administered in doses twice as large and in the same manner as would be given to the human subject. But this is a dangerous remedy, and we are extremely adverse to its use on any occasion whatever, believing that we have substitutes for it, divested of its poisonous and injurious latent effects upon the system.

DISEASED HORSES.

There is perhaps no subject less understood by the farmers in this country, than the nature and cure of diseases among their stock. The veterinary art is practised, with very few exceptions, by persons wholly unqualified, either by education or experience, for the vocation; hence, the reluctance that many have to entering upon it. I had occasion a few days since to call on a man who had studied at a Veterinarian School in Edinburgh, Scotland, and had practised the art for several years before coming to the United States. He brought with him here a diploma and good recommendations. On asking him why he had given up the practice, he replied, because there are so many quacks in the business in this country, mostly from Europe, it has become very disreputable, and nearly every one who employs me suspects equally my capacity and honesty. Books on this subject are extremely scarce among farmers, and many of them worthless. There ought and must be a remedy for all this. If every farmer would note down the history of any uncommon occurrence which takes place among cattle, horses, sheep, swine, or fowls; describing, as near as possible, the nature of the disease; its origin and cause; together with the manner and means made use of to effect a cure, and the final result of his practice in so doing, together with his own remarks and observations, as well as those of other men of sense and experience, where a cure has been effected in similar cases, it would throw much light upon subjects where darkness and obscurity now pervade.

In September, 1842, I was requested to take charge of a stud of horses, consisting of mares and colts, thirteen in number. I found them in their pasture, suffering with a disease showing itself in the following manner: Some had swelled tongues with blistered spots upon them, with canker and blisters upon the lips, so that they could eat nothing except a mash made of wheat bran and shorts, and only enough of this to keep them from starving. Others had a fester at the crown of the hoof, running from corner to corner, and opening a sore between the hoof and ham an inch wide, with the fore leg swollen to the shoulder. Others were affected in the same way on the hind foot, with leg swollen to the hip; and, if a horse, the sheath also badly swollen. The first thing I did was to gargle the mouth with a swab dipped in a solution of chloride of lime, washing the swollen limbs with warm soap suds for an hour or more to each limb, then bathing the part where a suppuration had taken place with water, in which had been dissolved corrosive sublimate, arsenic, or copperas. I tried each of these on different feet, to test their respective virtues, then sprinkled over the sore pulverised blue vitriol and burnt alum. It took most of the night to perform this operation upon three or four of the tame animals; all the others, having never been handled, were nearly as wild as deer. The next morning I put the horses into a meadow of fine clover rowen, with a barn standing within the enclosure, a floor running through the centre of the barn, with a mow of hay on one side. Into this barn I would decoy a young horse or colt, get a rope over the head with a slipping noose, and, with floor covered with straw, I would bring them to the side where the mow of hay was, then they might rear and throw themselves against it or upon the floor without harm. In this way, I halter-broke the whole of them, so that I was enabled to manage and doctor them with the assistance of one man. I was completely successful in the cure of all, with no additional remedy to the foregoing, with the exception of bran poultices applied to the feet, which greatly aided in drawing out the inflammation. These, after having been on 12 hours, would become very offensive; indeed, the atmosphere of the whole barn was highly impregnated and impure. This practice was perfectly successful. Every animal recovered, with the loss of three hoofs only out of the whole; sound new ones growing out in six or eight months. These horses had travelled 120 miles through a settled country, previous to being attacked, and were four days in performing the journey. Can any of your readers tell the cause of the disease? Ohio.

Our correspondent has here met a frequent disease. It is caused by poisonous weeds. The locality of the affection shows this, viz.: the mouth and the feet, the only parts so constantly in contact with the ground as to be acted upon by weeds, to the production of disease. There are several weeds that are poisonous, and these are more virulent in wet than in dry seasons. The summer of 1842 was in Ohio a wet one, and the growth of weeds consequently great. What particular weed caused the affection mentioned, cannot now be known. In the vicinity of New York there are several weeds which, when allowed to grow freely, produce like diseases. The treatment is: 1st, bleeding, if there be much general inflammation, which is sometimes the case; 2d, bran mashes, with Glauber salts, in doses of from half a pound to two pounds, according to the size and age of the animal, and half to a whole tea-spoonful of saltpetre per day, to cool and purify; and 3d, the application of lotions, cooling and drying. Of these, sugar of lead is the best, unless the discharge from the ulcers is very abundant, when copperas may be first used, to be followed by sugar of lead.

Hardhack.—A shrub growing two feet high, bearing a cone-shaped, lilac-colored tuft of blossoms. A great pest to the farmer. Nothing will eat it. It grows rapidly, and spreads with destructive energy. I know not its botanical name. How shall I kill it? Shall I mow it? Summer fallow? Shall I starve sheep into eating it? What shall I do? It grows in pasture which I need to occupy. Tyro.

The Tamarack Tree is the only thing we know under the local term of "Hardhack." We do not recollect the shrub described by our correspondent, and hope some of our readers will be able to answer his inquiries in full. As to killing it, we think this can be easily done; for we never saw the weed or shrub which we could not successfully battle against, by the simple process of cutting it close to the ground, just as it commenced blooming, then spread a little salt over the fresh-cut shrub or weed, and turn in a flock of hardy sheep. The cutting is injurious to the shrub, the salt destructive; for as it dissolves, it penetrates the stalk or stem to the roots; besides, if it attempts to rise again, the sheep will be pretty certain to gnaw it down in nibbling for the salt.

WESTERN CALENDAR FOR AUGUST.

During the whole of this month in the hemp-growing regions, all hands must be employed in cutting and securing the hemp crop. When hemp is sown as early as the middle of March, it is sometimes ripe in the latter part of July. To afford time to complete the hay harvest, it ought not to ripen before the 1st of August. If cut too green, it is subject to injury, by exposure to a hot sun; and if not cut when fully ripe, it is subject to injury of a different kind. The operation should, therefore, commence the moment hemp is ready for the knife; and if cut within one week, it will be in good time. As the hemp grower so arranges his different sowings, as to allow of intervals between each, these different parts of the crop come on in succession, so as to enable him to cut each in due season. After sowing one-half of his intended crop, a longer interval than usual should intervene, so as to give time to put in rick the half of the crop first cut. To permit all to remain on the ground till the whole crop is cut, would frequently expose the part first cut to injury from *too much* rain falling on it. *A moderate quantity* of rain, on hemp, lying on the ground, is advantageous; *excessive* and *long-continued* rains are very injurious.

After the hemp is all cut, it is sometimes too wet to put in rick. Intervals of this kind should be embraced to employ all hands in cutting a second growth of thistles and mulleins, which sometimes spring up, and also burrs of all kinds, iron-weed (devil's bit), and other noxious weeds, which infest the woodland pastures, which may be exterminated by repeated cuttings.

In this month tobacco begins to ripen, and the utmost diligence should be used in cutting and housing it as fast as it ripens. Where neither hemp nor tobacco is raised, the wheat crop should be threshed, and delivered at the mills or sold, during this month. In the hemp region, this operation is performed, if possible, before the hemp crop comes on, by hauling the grain directly from the shock to the threshing machine, and immediately delivering at the mill. But those who have large crops, are compelled to stack their wheat, and delay threshing till the hemp crop is secured. In the wheat growing region, where wheat is the principal crop, and much ground intended to be sown, the plows should commence running to prepare the fallow or sod-ground, if any, for the coming crop.

Turnips should be sown early in this month, or, if seasonable, in the last week of July.

A. Beatty.

Prospect Hill, Ky.

Ladies' Department.

EARLY RISING.

VOLUMES have been written upon the advantages of early rising—its influence in preserving beauty, and improving health. Many physicians recommend walking before breakfast, to young ladies whose healths suffer for want of exercise. In my humble opinion, the end would be obtained more effectually, by shaking their beds, with the chamber window open, or, in fine weather, *working* for an hour in the garden. Many a young lady makes the experiment, walks the prescribed time or distance, and returns languid and disappointed, with aching head, wet feet, and snowy stockings dabbled alternately in dew and dust, until their original hue is more than doubtful. Many a youthful bard has sung the delights of wandering in the "gray dawn of morning," to stroll with his "ladye love" "through the *dewy* mead," to "shake the glittering *dew-drop* from the thorn." All very well in their way, no doubt! though, not being a poet, I am so simple as to prefer letting the sun dry the grass, while I eat my breakfast, and agree cordially with the very sensible old gentleman, the only one of the rhyming fraternity, I believe, who has even alluded to the discomforts of such excursions.

> "I love not *early morning walks;* I love not
> To get my feet wet; and the bard who wrote
> The silly trash of brushing dew away
> To see the sun rise, hardly knew, I fancy,
> What the dew was made of, or the vile effect
> That frequent soaking hath on shoe leather."

Poetry, feeling, and good taste, have but one voice in regard to the benefits of early rising; but few of their votaries have dwelt as they might have done, upon the economy of *time*, that first, best gift of God to man; and fewer still have noticed the effects produced upon the mind, which becomes invigorated, and capable of greater exertion, and a more healthful tone of feeling, in exact proportion to the strength gained by the body. All know the truth of the vulgar adage, "An hour lost in the morning is looked for in vain all day;" and many mourn the neglect of these "fair occasions gone for ever by;" yet none, except those who from long experience have reaped the advantages of early rising, are capable of appreciating them. The first hours of the day are unquestionably the best for study, and by those who live at ease should be devoted to serious reading, and the acquisition of useful knowledge. I know a lady, who, between the hours of five and seven, A. M., made herself mistress of the French language, and read the works of all the best historians, from Josephus to those of the present day. This was the employment of the long dark mornings in winter; in summer she worked during the same hours in the greenhouse and garden, where every vine was trained, and every shrub was trimmed by her tasteful hand, until the whole smiled, a perfect paradise of sweets. The remainder of the day was devoted to domestic occupations, in which she excelled, and to society of which she was an ornament.

Another lady who, during a long life, rose at four o'clock, throughout the year, with whom I was on terms of intimacy and friendship, has often showed me the many large volumes which she had filled with copies of original documents of our early colonial history. The letters from which she drew them have almost crumbled to dust by the ravages of time and early neglect; the hand that copied them is mouldering in the grave; but the volumes will long be consulted as books of authentic reference, by the antiquary and the historian. After breakfast she had no time for literary pursuits, for then her husband, her children, and her family concerns demanded and received her assiduous attention. She directed and *assisted* her servants; showing by example how labor could be saved by timely thought and system. No dairy produced finer butter and cheese—no house was kept in more exquisite order—yet no one had more leisure for exercising the rights of hospitality; and over the whole she presided with so much dignity and grace, and her conversation was so varied and instructive, that her society was sought not only by the first in rank in our own country, but by nobles from other lands.

An amusing instance of her habitual neatness, I will record for the benefit of some who may think daily sweeping unnecessary. A French gentleman while on a visit to her husband, cut his face with a razor, and wished to apply the well known remedy of *cobwebs* to staunch the blood. The lady was sadly at a loss—she did not like to say there were none in the house; so she permitted a search to be made in every nook and cranny, from the garret to cellar and sheds of her large and stately mansion; but not a spider had been allowed to spin in peace and comfort. With all his French politeness, the guest could scarcely conceal his vexation, when at last, one of the boys rushed into the hall, crying out in great glee, "Papa, I have found a cobweb in the stable!" His mother's jurisdiction did not extend to that.

I could mention many other instances of the wonders wrought by stealing an hour or two from sleep *in the morning;* but I must hasten to tell my young friends what country girls may effect, who have the active concerns of the homestead to attend to. The first step, they must fix the good *habit* of going to rest by *ten o'clock*. Country visiters have all taken their leave long before that hour. This they will find to be the best preparation for the labors of the next day; and after *seven hours'* sleep, they will be ready to rise at *five o'clock*. In addition to the usually neatly arranged wash-table, every chamber should be provided with a *tub* at least 18 inches in diameter, and 9 inches deep. In this, nearly full of fresh cold water, each should wash from head to foot, and rub well with a coarse towel, every morning in the year, before they dress. The advantages are, perfect cleanliness, brightness of complexion, good health, and a complete cure for the lazy fever. There must of necessity be a wash-bench in every kitchen or shed; but the use of it, as the only daily means of purifying, is much to be blamed, as the head and hands only can be properly cleansed, without undue exposure, and injury to the dress.

The windows of the chambers should be thrown wide open, even in stormy weather, while the bed is well shaken, and the room put in accurate order before it is left. With the generality of our farmers' daughters, the morning brings nothing but the cheerful bustle of active employment, in which reading to advantage would be as impossible as it would be out of time; yet early rising is not the less necessary for the girls who like to enjoy leisure for intellectual pursuits in the after part of the day. The beds can be made as well before as after daylight—the bread set to rise—the pies made ready for the oven—and the comfortable, social breakfast prepared and eaten—the younger children bathed and dressed—and a thousand little *odd jobs* done which will wonderfully help on the more laborious work of the day. Wilson, the Ornithologist, a poet of nature's own forming, while dwelling with delight upon a scene in a Pennsylvania farmer's kitchen, where every body was busy by candle-light, one cold morning, says:

> "Even little Mary in the corner sits,
> And while she nurses pussey, nicely knits."

Who has not felt the real comfort of being beforehand with time, after an unusually early start in the morning? how the day seemed to lengthen, and give ample time for everything to be done quietly! What a pleasant spur was given to exertion, and with what satisfaction such a day has been looked back upon!

Where the work is systematically arranged, there is a certain portion only to be done each day; for instance, washing and churning never come at once, nor baking and ironing. Each day has its appropriate labor, and where the family is large, the girls should take regular turns, so that one should always be released from active employment, and take the work-basket or spinning-wheel, which would prevent any unpleasant bustle, if unexpected visiters arrived. But I here declare determined war against the plan, too often pursued, of giving all the sedentary employment to the sister or aunt, who happens to be in delicate health, or is less robust than the others—this is cruel kindness! If she be really sick or disabled, nurse her tenderly, until returning strength allows her again to be useful; but beware of prescribing for symptoms instead of curing disease. Never let her indulge the languor which debility naturally produces, and which increases if not judiciously checked; but tempt her to exert herself in dry, light work, if it be only gathering and arranging flowers in the parlors, until she is actually tired; and then, after giving a little nourishment make her *lie down while she rests;* but never permit her to sit down to sew or read until both mind and body are refreshed.

After dinner in summer, and after supper in winter, there are always some unappropriated hours—I mean for those who have earned leisure by rising early—and this is the time when a course of reading can be gone through with. If there is no important sewing, several might be engaged in study; but even when the needle must be plied most earnestly, one could be spared to read aloud some well known chosen book. I do not like to anathematize *all novels*—but I will say that works of fiction *never made great, good, or valuable characters;* and the fewer read the better. No one can complain at the present day, of the want of books that combine utility with amusement. There is a wide range of history, travels, biography, and works on natural history and natural science, written in so attractive a way, that the only difficulty is to choose between them, or lay the book down when begun. Literature is cheap now, and the book of knowledge is no longer sealed up from farmers, even in sections of country remote from cities. If the young people are early allowed to acquire a love for serious and valuable information, and these family reading parties are looked forward to as a recreation, not a task, we shall soon hear no more complaints of the insipid conversation of country girls.

It would be a good plan for neighbors who are most congenial in spirit, to form little associations, and meet once a week or fortnight, at each other's houses, to read, and improve themselves and each other by conversing on such subjects as are of real interest. If they love botany or mineralogy, they should bring specimens to compare and analyze. These intellectual pursuits need not preclude an amicable rivalry as to who shall rear the finest flowers and fruit, make the best butter, or the prettiest patchwork bed-cover; for they should always carry some neat sewing to these meetings. The fingers need not be idle because the *mind* is exercising its powers. Knitting stockings and gloves and braiding straw are graceful and pleasant works, which can be done almost as well without the use of the eyes, as with it, and therefore particularly well adapted for social meetings. The first mentioned I earnestly recommend to my *young* friends; for while amusing themselves, they can make firm, strong hats for their fathers and brothers, which will outlast half a dozen bought ones—and for themselves, pretty, fine straw cottage bonnets, which, as they will cost nothing but the pleasant labor of making, may, after being worn for one season as *best*, be taken into daily use in place of the shapeless, tasteless, inconvenient sun-bonnets now worn, by which so many pretty faces are disfigured. E. S.

To judge of the Quality of Wheat Flour.—Take four ounces of the flour of wheat, separated from the bran; let it be mixed with water so as to form a thick paste, which must be thoroughly kneaded for a quarter of an hour. The paste is afterwards to be well washed, continually kneading it with the hands under the water, and changing the water from time to time. This washing and kneading are to be continued until the water no longer becomes white by the operation; the glutinous matter, which is of a whitish gray colour, then remains in the hands. If the wheat was sound, the matter is glutinous and elastic; if the wheat was heated, the matter will be brittle; if the wheat was in a state of fermentation, no glutinous matter will be obtained from it.—*Family Receipt Book.*

To make Soap without Boiling.—Take one gallon of lye, strong enough to bear up an egg, to every pound of grease. Put the lye into your barrel, and strain the grease hot through a sieve or cullender. Stir this three or four times a day, for several days, or until it thickens. By this process you have soap, clearer and with much less trouble than in the old way.

A Preventive of Chilblains.—The most effectual mode of guarding against chilblains is to accustom the skin to a moderate friction; to avoid clothing the parts too warmly; to avoid still more carefully sudden and great alterations of heat and cold; to take particular care not to go into a warm room, or near a fire, out of the cold air; and to wash the parts frequently in cold water.—*Cooper's Surgical Dictionary.*

Boys' Department.

THE HISTORY OF THRIFT AND UNTHRIFT.

In the neighboring village hard by, there are two farmers of equal standing as regards honesty of purpose, benevolence of intention, and all the social virtues. They both mean to discharge all their duties to society, their families, and friends, and it is only when we try them by their performance, that we find any striking difference. But to mark their qualities more fully, and afford instruction through the successive progression of their parentage, youth and manhood, we must notice them distinctly in each.

Their Fathers.—They were both born in the village in which they now reside, and of equally reputable parents. Both were farmers and respectable members of society. The same year that the father of Thrift was sent to the General Assembly, the father of Unthrift received a commission for the office of Justice of the Peace. There was a slight difference in their respective characters in one particular. They were both "well to do in the world," as the phrase is; but while the elder Unthrift had inherited all his property, a part of which he had already spent by his easy good nature, and somewhat indolent habits, the father of Thrift had been a poor boy, and worked his own way in the world; and having married early in life, had brought up a large family, while the other had but this only son.

Their Mothers.—The greatest difference, however, in their parents was in their mothers. Like her husband, Mrs. Thrift, was a poor child, and an orphan, but had been brought up by a widowed aunt, in habits of great industry, order, and economy. She was early taught to have a place for everything, and everything in its place; to waste nothing, and spend no time in idleness; and when her work was done, instead of sozzling away her time, playing with the kitten or her apron strings, or sauntering with Goody Tittletattle's girls, and gossipping about the young men, she devoted her leisure hours to reading useful books, or making up counterpanes, knitting stockings and other articles that might be useful; so that when she had become one-and-twenty, she not only had her mind well informed, but had made up quite a wardrobe for herself, and had acquired so good a character, that Mr. Thrift thought, and rightly enough too, she was a very good match as a wife. Mrs. Unthrift on the other hand, had been indolently and indulgently educated, and always having enough on hand, without any necessity for looking out for herself, her parents being "well off," she arrived at what ought to be "years of discretion," without any particular habits of any kind; yet being a pretty, amiable girl, and, withal, having a prospect of inheriting some money, Unthrift thought himself a lucky dog in securing her as a partner for life.

Their Boyhood.—The boys went to the same district school; yet though Unthrift was nearly two years the oldest, little Thrift soon caught up to him in his studies, when being put in the same class, he easily got above him, and after that, generally stood at the head, while Unthrift stood at the foot. This was not owing to any want of *cuteness* on the part of Joe, or Josey, as he was generally called, for occasionally, when any prize was offered that Joe wanted to obtain, he would, by a little application, outdo all the boys and secure the prize; while Tom, as they called young Thrift, would study with all his might, without coming within arm's length of Joe. At hunting, fishing, or frolicking of any kind, which required ingenuity or skill, Joe was sure to be ahead of all his playmates. But then, his habits were negligent, he was half the time late at school, his lessons given him over night, not half learned when he got there, and he had very little idea of minding any of the rules; not that he was stubborn or bad tempered, but he "didn't see any use in sitting in his own seat for three hours together, and learning arithmetic, geography, and grammar, neither of which would help to tree a squirrel, hole a fox, catch a trout, or bring down a turkey at a shooting-match." Tom was always punctual at school, always had his lesson learnt, though he had to work hard for it, and always did as he was bid by the master, simply because his parents told him, this was the only way to make a man of himself—and he believed them. Josey's parents indulged him as they indulged themselves, and let him take pretty much his own course, as they had done before him, and it was universally believed, had the boys *swapped* parents when they were babies, Joe would have been much the smartest scholar of the two.

Grown up.—The boys had already got to be men, while they still thought they were youngsters, and before they were three-and-twenty both were married to young women in the village, something after their own character.

Their Wives.—Tom's wife was the daughter of a poor, but hard-working wagon-maker, who had always been accustomed to industrious habits; while the wife of Joe had received many more advantages in school, though it is said she had misimproved them; but she could do worsted embroidery, draw pretty well from a copy, and play common psalm tunes, Yankee Doodle, and country dances, on the piano.

Their Occupation.—Tom took to farming, as his father had done before him, and as he had nothing of consequence to begin with, he rented a small farm which his father helped him to stock. He had of his own, a pair of oxen, a few sheep, and some tools, which a couple of years of hard service since he "came of age," had enabled him to purchase; and his wife had besides, three good cows given her by her mother, while her father gave him a good second-hand ox-wagon. Tom and his wife went "right" to work. They were up by day-light in the morning, and by the time he had his "chores" done, the cows milked and turned to pasture, the oxen curried, fed, and yoked, and the pigs provided for, breakfast was on the table, so that he was ready to go out to his day's work by the time Josey and his wife had "turned out of bed." [*To be continued.*

Unripe Fruit.—More boys are made sick at this season of the year from eating unripe fruit, than from any other cause whatever. Be careful then in this particular, and learn to govern your appetites. This will be good discipline for you.

Admonition.—Samuel Cook, a young man of Norwich, Conn., ruptured a blood-vessel while chasing some turbulent boys from his premises last Saturday, and in the course of an hour was a corpse.

FOREIGN AGRICULTURAL NEWS.

By the arrival of the steamships Britannia and Great Western, we have our European journals to July 5th.

Markets.—*Ashes* still continue dull. *Cotton*, of the lower qualities has advanced ¼d. per lb.; Sea Island, ¼d. per lb., the demand brisk. The stock on hand at Liverpool, 1st July, was about 1,043,000 bales, against 901,000 same period last year. *Flour*, on the advance. *Beef* has fallen a trifle. *Pork* and *Lard*, though dull, maintain their price. *Cheese*, in good demand. *Naval Stores* slow of sale. *Tallow* in fair request. In other products no material change.

Money is the same as by our last advices.

American Stocks have experienced a slight advance, and since the resumption of payment of Pennsylvania interest, are looked upon with more favor.

The Weather was slightly unfavorable for the ripening of the grain crops; but they were looking well, and it would be premature to decide yet upon the prospects of a good or bad harvest.

Colonel Todd, of Kentucky, the American Minister at St. Petersburgh, so deservedly popular in the Russian Capital, has been appointed a member of the Imperial Agricultural Society—an honor never before conferred upon a foreigner.

The Example Farm of Lord Ducie, at Whitefield, now produces twenty-three times as much wheat as it did under its former management.

Molasses far Fattening Cattle.—Some spirited cattle-traders have begun to use molasses for fattening their stock, and if the Porto Rico molasses should be admitted, the supply will be abundant and the article cheap.

Crops without Manure.—We wonder the press of the country has not more sense than to copy such humbug paragraphs as the following: "The Railway Bell announces a discovery of a Dr. Bickes, by which the earth, including the poorest soils, and even sand, are made to produce abundantly all sorts of crops, without any kind of manure."

The Famous Long-Horned Cattle Revived—It is said that these cattle have been revived, and are now bred with great success in England. Several were to be exhibited at the annual show of the English Agricultural Society, which was to come off the past month at Shrewsbury. We saw a few animals of this breed when in England, and found them nearly equal to the Short-Horns in symmetry, early maturity, and good milking qualities.

Gastrotomy.—Mr. George Topps, of Newton, was called in to see a young heifer, belonging to Mr. John Godfrey, farmer of Tyd, St. Giles, when finding the ventricular distension not yield to the usual remedies, he proceeded at once to perform the operation of gastrotomy, or opening of the stomach; from the cavity of which he extracted three heaped large pailsful of food! On the following day, the same veterinary surgeon extracted a calf from the same heifer—both of which are doing well.—*Stamford Mercury.*

Chinese Grass.—During the past week, Messrs. Hargreave and Brothers, flax spinners and power-loom linen manufacturers, of this town, called at our office and exhibited a sample of Chinese grass. This article is represented as possessing all the qualities of flax, but in a higher degree than any other known to our spinners or manufacturers—surpassing the best qualities in strength, fineness, and length of staple. These gentlemen also showed us a sample of fine linen manufactured by them from this article, which greatly resembled French cambric, but with a more silky appearance.—*Leeds Mercury.*

Early Lucerne Clover.—We have seen a specimen of very early clover of the above description, measuring fully two feet in height, grown at Stedhalt, on the property of William Walsh, Esq., who, we understand, has been cutting it for the use of his horses since the 1st of May. This is the first clover we have seen for the season, and we understand what adds to the merit of this description of clover is, that it is a perennial plant. The sample of this extraordinary early growth can be seen at our office.—*Drogheda Conservative.*

The Beneficial Effects of Irrigation have never been more clearly demonstrated than by this season's crops at the Reed Beds. Of fruit, the produce is abundant; but the wheat crops, generally good, are on some sections extraordinary. At Wymondlybury (Dr. Addison's farm), the wheat crop is unusually heavy, that of White Talavera, standing about six feet in height, the ears exceedingly well filled, and several we have seen (plucked indiscriminately) measure seven inches in length. The produce is estimated by competent judges at about forty-five bushels per acre.—*South Australian.*

French Agriculture.—The French commission on irrigation states the following facts as to the present condition of several branches of agriculture in France: 1st. The supply of cattle is so deficient, that animals and animal food of the value of ninety-four millions of francs are imported yearly; 2d. Fifteen thousand foreign horses are required every year to supply the demand for horses for war and industry; 3d. The plowed land in France is to the grass land as 6¼ to 1, whilst in most of the neighboring countries it is only as 3 to 1, and in England and Holland, 2 to 1; and 4th, there are means of forming not less than two millions of hectares of artificial irrigated meadows in France, which would produce a revenue of about eight millions sterling.—*New Farmers' Journal.*

An Old Mare—Thomas Pedder, of Scale Hall, near Lancaster, has in his possession a capital mare, in daily work, thirty-one years of age, and she has a fine foal at her foot. She has served him faithfully for nearly the above lengthened period, and, from appearance, is likely to do so for some years to come.—*Preston Pilot.*

A Very Old Ewe.—Mr. Robert Vincent, of Pinney Farm, Axmouth, has amongst his flock a ewe 21 years old. We believe this is almost an unprecedented age for a sheep. The animal has proved an excellent breeder, generally having twins, and she has now by her side a lamb fit to be weaned.—*New Farmers' Journal.*

To Grow Carrots in a Stiff Clay Soil.—The ground having been double-dug, holes were made in rows eight or ten inches apart, and the same distance between the rows, with a crowbar, thrust about eighteen inches deep and worked round, so as to form a clear hole in the form of an inverted cone; the holes were then filled with good light mould, and a few seeds sown on the top of each. It being intended that one plant only should occupy each hole, all the young plants were, in due time, drawn from each, save and except one, and that of course the strongest. The seed used was the red Altringham, and many of the plants were very strong, and all perfectly straight—a quality seldom obtained in heavy soils, and the crop far superior to others sown and treated in the usual way. I regret that the crop was not weighed in comparison with the others. However, it has satisfied me that I can grow good straight carrots upon a soil which is almost tenacious enough to make bricks; and, in reality, this mode has the effect of converting the ground into a series of conical pots, and very cheap pots too I believe that this method is, in point of economy, applicable to field culture.

Enthusiasm of the English People in Horticulture.—On the 21st of June, TWELVE THOUSAND, THREE HUNDRED AND FIFTY-FIVE FELLOWS of the Horticultural Society, and their friends, assembled at Chiswick at the opening of the second exhibition of flowers this season. The first exhibition took place in May.

Remedy Against Hydrophobia.—Dr. Burnes, on learning that two tradesmen had been bitten by a mad dog, instantly cauterized, cupped, and excised the wounds; and had also recourse to the singular method of making the patients suck their wounds. This course the Doctor recommended ten years ago in the *Lancet;* and he says that no danger whatever is to be feared from it, if the mouth and lips are free from sores or chaps.

Bones and Sulphuric Acid.—Mr. P. Davis says, with reference to Mr. Pusey's suggestion as to the propriety of using bone-dust dissolved in sulphuric acid, along with *compost* instead of *water*, for turnips, I can confirm this idea from practice, having last year manured five acres with only 13 bushels of bone-dust dissolved in 270 lbs. of the acid and 150 gallons of water. After standing 24 hours, the liquid was mixed with three cart-loads of coal ashes, and left to remain for a week; during which time it was turned over two or three times. The mixture was then drilled along with the seed; and the result was a fair crop of common turnips off a piece of poor land, without other manure, and at a cost of only 12s. 9d. per acre.

Culture of Flax.—We learn from good authority that flax will be grown this year, more or less, in every county of England, and it is expected somewhat extensively in Sussex. One gentleman will sow nine acres.—*Brighton Gazette.*

Progress of Short-Horns.—The Great National Irish Agricultural Society appears to have adopted the plan so long followed by the Union Agricultural Society, of diffusing the Short-Horned breed over Ireland. At the recent annual meeting, sales to a great extent were made, in addition to the usual business of premiums, &c.

Double Eggs Joined by a Filament.—We have had sent us from Summerville two hen-eggs, the yolk and white perfect, but without any shell, and which are firmly joined together by a filament. A scientific friend has favored us with the following remarks upon them:—These eggs are very unusual productions; but I think their having been born together may be accounted for by the fact, that eggs are always formed in a long chain, and that only one is in general detached at a time, when its communication with the one above has been cut off by a complete deposit of phosphate of lime round it. The hen, in this case has been about to cease laying, and has likely been badly supplied with lime or broken shells, without a large supply of which no hen can complete an egg, or be a good layer. In many eggs you will notice a swirled appearance of the shell at the ends, showing where the lime has been liberally supplied, or rather applied, to separate it from the eggs above or below it. I believe that the fowl has not had liberty enough to enable it to gratify its appetite for chalky substances, or this arrest in the development of these eggs would not have occurred. —*Dumfries Courier.*

French Agriculture.—The Presse publishes some extracts from a work presented to the Agricultural Congress now sitting at the Palace, of the Luxembourg by the author, M. Catineau Laroche, and entitled, "France and England compared with respect to Agricultural, Manufacturing, and Commercial Industry, and the consequences to be deduced from this comparison." It appears from this work, that England, in comparison with the extent of its surface, possesses four times more cattle than France. And as it is not possible to pursue a judicious system of agriculture without manure, and as the feeding of cattle is the most productive of supplying manure, it follows that before France can compete with England in agricultural wealth, she must increase her stock of cattle, but in order to do so she must increase her pasture lands or meadows. "France," says M. Laroche, "possesses but 4,200,000 hectares of natural meadows, or only 1-16th of her cultivated soil. From this calculation it may be easily comprehended, how insufficient is her supply of green food, and that it becomes absolutely necessary that she should substitute another to the triennial system at present in use." M. Laroche concludes by stating, that if the alternate system of cultivation pursued in England was introduced into France, the produce of corn would be doubled within twenty years. Fifty-five years since, the produce of Great Britain was estimated by Arthur Young at three milliards. At present it is estimated at five milliards 725 millions."—*New Farmers' Journal.*

Fibrous Covering Stimulates Vegetable Growth.—A light covering of *straw*, for instance, on grass land, will stimulate its growth in an extraordinary degree; much more indeed, it would appear, than can be accounted for on the supposition that the ground is thus kept moist in dry weather.

Average Rent of Land in England and Wales.—The average rent of land in England is said to be 18s. 10d., and that of Wales, 9s. 5d.; the average of England and Wales, 17s. 8d. The produce of wheat in England and Wales is probably under twenty-one bushels per acre.

American Ice.—A novel article of import has recently taken place in the shape of ice from America, in the neighborhood of the Wenham Lake, &c. The article is brought in large blocks, varying from 2 cwt. to 4 cwt., and several vessels have arrived laden almost entirely with it, having several hundred tons on board. It is deposited in the ship's hold with care, and covered and surrounded with wood dust, and so arrives in a very perfect state, with very little loss in weight, particularly at this period of the year. The greater portion of that hitherto imported has been landed at the St. Catherine docks, where a shed or warehouse has been appropriated in a cool portion of the south quay, and to which it is removed on being landed and deposited until removed to the owners' private stores.

Curious Hatching.—During the greatest heat of the summer of 1843, a chicken was hatched in my hen-house, from a nest-egg which had so long served the purpose that it was on the point of being removed, it was hatched by the hens which successively chanced to lay their eggs in the nest, aided by the unusual and equable heat of the atmosphere.

Endurance of Arabian Horses.—I was present at a race in Persia, and there was no question about the choice of the best turf, or taking precautions against accidents; neither was the race limited to a few minutes. The winning point was at the distance of seven *farsangs*—that is, ten or eleven leagues, or twenty-six or twenty-seven English miles, across a rocky country, without any indicated road. The winner arrived in an hour.

When Sir John M'Neil was physician to the British embassy at Teheran, he went to visit one of his countrymen, who was ill, at Ispahan, and he assured me that he arrived in four days with his horses. The distance is about 120 leagues.

I was shown, in the stables of Feth-Ali-Shah, the Arabian horse on which that prince came from Shiraz to succeed his uncle. He traversed the distance in a much more extraordinary manner, if we may believe Malcolm, for it took him only seven days. This faculty of travelling for a long time without stopping, and their great abstemiousness, causes the horses of the province of Nejd to be particularly esteemed.

The young Pole whom I met at Djedda, and who had travelled thither through that country on his way to Bussora, attributed these qualifications to the training of the horses and the difficulty of procuring food for them. According to him they have to accustom themselves to brackish water, and to live on a species of thistle, the only plant met with in those deserts. None but animals of a strong constitution can endure this regimen.—*Narrative of a Mission to India.*

Editor's Table.

Errata.—In the article "Farm of Dr. Pool," page 209, line 8, for *quarts*, read *pints*,—thus: "The milk from one pure Alderney cow yielded at the rate of a quart of the richest cream to 13 *pints* of milk."

The same page, line 25 and on, we made some mistakes as to pedigree of horses. It should read; "Medora, got by American Eclipse, out of Maid of the Forest, by Marshal Duroc; g. dam by Lottery, by imported Expedition, &c. Indiana was got by Sir Archy, out of Votress, by Constitution; g. dam Meretrix, by Magog," &c.

Statement of the Value of the Exports of the Growth and Produce of the United States, for the year ending on the 30th day of June, 1844.

THE FOREST.

Skins and furs,	$742,196
Ginseng,	95,008
Product of wood :—	
Staves, shingles, boards, etc.,	1,672,179
Other lumber,	326,945
Masts and spars,	23,274
Oak, bark, and other dye,	70,370
All manufactures of wood,	919,100
Naval stores—tar, pitch, rosin, and turpentine,	818,692
Ashes, pot and pearl,	1,140,848
	$5,908,712

AGRICULTURE

Product of animals :—	
Beef tallow, hides, horned cattle	$1,810,551
Butter and cheese,	758,829
Pork (pickled), bacon lard, live hogs,	3,236,479
Horses and mules,	315,696
Sheep,	27,824
Vegetable food :—	
Wheat,	500,400
Flour,	6,759,488
Indian corn,	404,068
Indian meal,	641,029
Rye meal,	104,391
Rye, oats, and other grain,	133,477
Biscuit or ship-bread,	388,603
Potatoes,	74,108
Apples,	51,465
Rice,	2,182,468
Tobacco,	8,397,255
Cotton,	54,063,501
All other Agricultural products :—	
Flax-seed,	23,749
Hops,	51,550
Brown sugar,	12,363
Indigo,	1,176
	$79,938,410

A Cow with Three Calves.—We saw yesterday, on the farm of N. B. Moore, near this city, the novel spectacle of a cow with three calves. The calves are about three days old, and though small, evince remarkable sprightliness. We have often heard of cows dropping two calves, but this is the first instance of three we have ever known.—*Augusta Chron.*

To Kill Crows.—Steep a piece of meat in a solution of strychnine or arsenic, and hang it on a pole. The crows pick at it with great avidity and are destroyed in great numbers.—*Somerville Pennant.*

Large Apple Tree.—At Hackensack, New Jersey, there is an apple tree, which measures 12 ft. 9 in. in circumference, and has produced 1,00 bushels of fruit in one season.

To Measure Corn in the Ear.—In a bulk of corn in the ear, measuring 12 feet long, 11 feet broad, and 6 feet deep, there will be 316 bushels and 8-tenths of a bushel of shelled corn. or 633 bushels and 6-tenths of ear corn as·

$$\begin{array}{r} 12\\ 11\\ \hline 132\\ 6\\ \hline 792\\ 4\\ \hline 316.8 \end{array} \qquad\qquad \begin{array}{r} 12\\ 11\\ \hline 132\\ 6\\ \hline 792\\ 8\\ \hline 633.6 \end{array}$$

The decimal 4 is used when the object is to find the quantity in shelled corn, because that decimal is half of the decimal 8, and it requires two bushels of ear corn to make one of shelled corn. In using these rules a half bushel should be added to every hundred, that amount of error resulting from the substitution of the decimals.—*Western Cultivator.*

Beautiful Experiment.—While making some investigations on the chemical forces of plants and the circulation of the sap, we made some experiments for the purpose of seeing how far the color of flowers was dependent upon the various salts contained in the earth, and which are taken up by the forces which convey sap. We took a beautiful white rose, placed the stem of it in a solution of the yellow prussiate of potash, let it remain there four or five hours. We then placed it in a solution of sulphate of iron, where it remained until morning. On examining it the next morning, we found the petals changed to a delicate primrose color, the leaves to a dark bluish green, and the wood of the stem to a deep blue. The fragrance of the flower remained unchanged, and it looked as fresh as one that was plucked at the same time, and which had been kept in a vase of water.

The *rationale* of these singular changes seems to be as follows:—The prussiate of potash is taken up by capillary attraction, and distributed through every part of the plant. The same is the case with the sulphate of iron. As soon as the two solutions are brought in contact, the iron, acting as a re-agent, revives the prussiate of potash. This beautiful experiment can be tried by any one, care being taken that the solutions are not too strong. The effects noted above will not take place if the solutions are mixed in a vessel before using. The experiment may be varied by using any metallic solutions, the resulting colors of course depending upon the salts made use of.—*Cincinnati Atlas.*

American Cheese.—The rapid increase of this important item of the dairy, at the West, is astonishing. Last year, the aggregate value of the amount that passed through the canals and the Hudson river was over one million and a half dollars. We gather the following statistics in relation to cheese from the canal office records at Albany:—

ARRIVED AT THE HUDSON RIVER.

1834, ...lbs.	6,340,000	1840, ·lbs.	18,820,000
1835, ...	9,586,000	1841, ...	14,170,000
1836, ...	14,060,000	1842, ...	19,004,000
1837, ...	15,560,000	1843, ...	23,334,000
1838, ...	13,810.000	1844, ...	26,674,000
1839, ...	14,530,000		

—*Hunt's Merchant's Magazine.*

To Kill Lice in Trees.—Mr. G. Reed stated that when his trees were infested by lice or *aphis*, he bored into the trunk with a common nail gimblet, about an inch and a half, and put into the hole a small quantity of *unguentum*. In the course of 24 hours they all cleared out and died.—*Maine Farmer*

Destruction of Sheep.—Our friend, Mr. Smither, told us on Monday, that four of his neighbors had lost between 100 and 130 lambs by dogs, during the last two months. One farmer alone had lost about 80.—*Maysville Eagle*

Cure for Piles in Pigs.—When the intestines protrude, make a tea of mullen leaves, and after washing the parts affected with warm soap suds, bathe with the mullen tea, and in a short time they will take their proper place inside of the pig.—*Maine Far.*

Merino Sheep.—We call attention to Mr. Lewis G. Collins' advertisement of Merino Sheep in this number of our paper. His flock was selected with great care about ten years ago, by one of the best judges of sheep and wool in Connecticut. Their breeding is equal to anything in New England, and if there be any pure Merinos in the country, these are unquestionably such. Mr. C. is now breeding his ewes to a pure Rambouillet buck from the flock of David C. Collins, Esq., of Hartford, Conn. Some of his animals offered for sale were got by the Rambouillet buck Grandee, out of choice Merino ewes, owned by Mr. Collins, of Hartford Grandee was the largest and best Merino sheep we ever saw.

To Produce Cherries without Stones.—Early in the spring, before the sap is in full flow, a young bearing tree is divided in two, down to the branching off of the roots, the pith carefully removed with a wooden spatula, the parts then united, the air being excluded by an application of potter's clay the whole length of the opening, and bound together by woollen cord. The sap soon re-unites the severed parts, and in two years the tree will produce cherries of the best kind, and having in their centre, in the place of the usual kernel, a thin soft pellicle.—*Courrier des Etats Unis.*

Consumption of Corn Meal in the West Indies.—A writer in the New Orleans Bulletin estimates this in Antigua, Dominica, Granada, Montserrat, Nevis, St. Kitts, St. Lucie, St. Vincent, Tobago, Guadaloupe, Martinique, Virgins' and Bahamas, with a population of 184,000 souls, must, in common calculation, consume—

Annually about - - -	200,000	bbls.
Barbadoes, 25,000, Trinidad 10,000	35,000	"
Demerara - - - - - -	15,000	"
St. Thomas, St. Croix, and St. John's	44,000	"
Porto Rico, 40,000, Jamaica, 30,000	70,000	"
Making - - - - -	364,000	"

The average net price of corn meal for 20 years throughout the West Indies, may be computed at $2½ per bbl., a price sufficient to recompense its manufacture. The meal must be equal to the best Philadelphia, kiln dried, made from the best yellow corn, packed in barrels of 196 lbs. net; and, so packed, that, on opening the barrel, it is perfectly full. The barrels should be clean when shipped, have a plug for convenience of sampling, well lined and riveted.

To preserve Hams from the Fly.—These are effectually preserved from the fly, while their quality is not at all injured, by throwing red pepper upon the fire in the smoke-house during the latter part of the operation.—*Tennessee Agriculturist.*

Analysis of Cotton—Professor Shephard of South Carolina, made an analysis of cotton, including the wool and the seed, which is reported in the Southern Agriculturist. We regret that he does not state the respective proportions of the constituents. They were carbonate of potash with traces of soda; phosphate of lime with traces of magnesia; carbonate of lime carbonate of magnesia; silica; alumina; sulphate of potassa; chloride of potassium; chloride of magnesium; sulphate of lime; phosphate of potassa; oxide of iron and manganese.

THE FARMER'S LIBRARY AND MONTHLY JOURNAL OF AGRICULTURE: Edited by John S. Skinner, and published by Greeley and McElrath, Tribune Buildings, New York, pp. 112, double columns, octavo Price $5 per year. The first number, for July, of this work, has been laid upon our table. It is got up in a style superior to anything yet attempted in the agricultural periodical line in America; and is equal in poin of paper, typography and embellishments, to the bes published in Europe. Of its contents, it gives 48 pages in the "Library," to the republication of the highly valuable work of Petzhold's Lectures to Farmers on Agricultural Chemistry, and 64 pages of the "Monthly Journal," to original articles from the editor and his correspondents, and extracts principally from foreign periodicals. The embellishments are, 1st, a highly finished and spirited portrait on steel of the late Patroon—Hon. Stephen Van Rensselaer; 2d, a beautiful lithograph of a group of Southdown sheep; and 3d, a lithograph of the Silk Plant from Tripoli. In editing this work it is the design of Mr. Skinner to fill up a niche not yet before attempted in American agricultural periodicals; and if we are to take the first number now before us as a sample of such as are to follow, he is bound to succeed, and that eminently. The name of the veteran John S. Skinner, the father of agricultural periodical literature in the United States, is so well known to the public that it needs no further endorsement from us. We welcome him to New York, and hope he may find such encouragement in this State, and the country at large, as to warrant his continuing his publication as long as he may be able to look upon a green field, or wield the agreeable pen he does, descriptive of its treasures and its beauties.

CATALOGUE FOR 1845 and 6, of Camellia Japonicas, Green-house and Stove Plants, &c., &c., cultivated at the Exotic Nursery and Horticultural Gardens of Valk & Co., Flushing, Long Island, New York. This is an elegant octavo pamphlet of 92 pages, and will be sent gratis to any one soliciting it, *free of postage.* We shall be pleased to execute orders for any of our friends desirous to obtain plants, flowers, &c., &c., from the magnificent and extensive conservatory and gardens of Messrs. Valk & Co. One of the partners has recently returned from a tour in Europe, for the purpose of selecting all that was rare and useful in their line; and taking it altogether, we think their establishment the best stocked of any other to be found in the United States.

ALABAMA PLANTER, Edited and published by W. W. McGuire, Mobile. Folio, 8 pages, weekly. Price $5 a year. The first number of this paper is well selected, and mixed in with a few racy editorials. It is designed, more particularly, to advance the agriculture of the South. Such publications are much needed there as well as here, and we trust the enterprising editor will find sufficient encouragement to go on with his periodical by the 1st of October next, as he proposes.

POSTAGE.—Under the new postage law, the letters addressed us, have increased at least five fold. But we beg our correspondents to reflect, that because postage is cheapened, it is no reason why *we should pay it all.* Postage to the many who address us, is a small amount individually, but a large one to us in the aggregate. We are always happy to pay postage on good contributions for our paper, and on our own affairs; but when the business is that of the person addressing us, and it puts us to some trouble without any profit, it would be no more than fair for correspondents to pay their own postage.

ACKNOWLEDGMENTS.—The Premium Lists of the Oneida County, N. Y. Agricultural Society, and Agricultural and Horticultural Society of New Haven, Conn.

REVIEW OF THE MARKET.

PRICES CURRENT IN NEW YORK, JULY 24, 1845.

ASHES, Pots,	per 100 lbs.	$3 81	to	$4 00
Pearls,	do.	4 12	"	4 25
BALE ROPE,	lb.	6	"	9
BARK, Quercitron,	ton,	22 00	"	23 50
BEANS, White,	bush.	1 12	"	1 25
BEESWAX, Am. Yellow,	lb.	28	"	33
BOLT ROPE,	do.	12	"	13
BONES, ground,	bush.	40	"	50
BRISTLES, American,	lb.	25	"	65
BUTTER, Table,	do.	15	"	18
Shipping,	do.	8	"	11
CANDLES, Mould, Tallow,	do.	9	"	11
Sperm,	do.	25	"	38
Stearine,	do.	20	"	25
CHEESE,	do.	4	"	8
COAL, Anthracite,	2000 lbs.	4 50	"	5 50
CORDAGE, American,	lb.	11	"	12
COTTON,	do.	5	"	10
COTTON BAGGING, Amer. hemp,	yard,	13	"	15
American Flax,	do.	16	"	17
FEATHERS,	lb.	26	"	33
FLAX American,	do.	6½	"	7½
FLOUR, Northern and Western,	bbl.	4 25	"	4 88
Fancy,	do.	5 00	"	5 50
Southern,	do.	4 12	"	4 88
Richmond City Mills,	do.	6 50	"	7 00
Rye,	do.	3 00	"	3 25
GRAIN—Wheat, Western,	bush.	1 00	"	1 08
Southern,	do.	1 00	"	1 05
Rye,	do.	65	"	67
Corn, Northern,	do.	50	"	53
Southern,	do.	49	"	50
Barley,	do.	50	"	52
Oats, Northern,	do.	42	"	44
Southern,	do.	38	"	40
GUANO,	100 lbs	2 50	"	3 00
HAY,	do.	50	"	60
HEMP, Russia, clean,	ton,	200 00	"	210 00
American, water-rotted,	do.	105 00	"	185 00
American, dew-rotted,	do.	75 00	"	125 00
HIDES, Dry Southern,	lb.	9	"	10½
HOPS	lb.	12	"	15
HORNS,	100.	2 00	"	8 50
LEAD,	lb.	3	"	4
Sheet and bar	do.	4	"	4½
MEAL, Corn,	bbl	2 31	"	2 56
Corn,	hhd.	11 50	"	12 00
MOLASSES, New Orleans,	gal.	28	"	31
MUSTARD, American,	lb.	16	"	31
NAVAL STORES—Tar,	bbl.	200	"	2 25
Pitch,	do	80	"	1 00
Rosin	do.	55	"	70
Turpentine,	do.	2 75	"	3 25
Spirits Turpentine, Southern,	gal.	37	"	40
OIL, Linseed, American,	do.	66	"	70
Castor,	do.	57	"	65
Lard,	do.	55	"	70
OIL CAKE,	100 lbs.	1 00	"	-
PEAS, Field,	bush.	1 25	"	1 50
PLASTER OF PARIS,	ton,	2 75	"	3 00
Ground, in bbls.,	of 350 lbs.	1 12	"	1 25
PROVISIONS—Beef, Mess,	bbl.	8 00	"	10 00
Prime,	do.	5 50	"	6 50
Smoked,	lb.	6	"	8
Rounds, in pickle,	do.	4	"	6
Pork, Mess,	bbl.	12 00	"	13 50
Prime,	do.	9 00	"	10 62
Lard,	lb.	7½	"	8½
Bacon sides, Smoked,	do.	3	"	4
In pickle,	do.	3	"	4
Hams, Smoked,	do.	6	"	10
Pickled,	do.	4	"	7
Shoulders, Smoked,	do.	5	"	6½
Pickled,	do.	4½	"	5
RICE,	100 lbs.	3 12	"	4 00
SALT,	sack,	1 35	"	1 48
Common,	bush.	20	"	30
SEEDS—Clover,	lb.	6	"	7½
Timothy,	7 bush.	12 00	"	14 00
Flax, rough,	do.	8 50	"	9 00
clean,	do.	11 00	"	12 00
SODA, Ash, cont'g 80 per cent. soda,	lb.	3	"	3
Sulphate Soda, ground,	do.	1	"	—
SUGAR, New Orleans,	do.	5	"	8
SUMAC, American,	ton,	35 00	"	37 50
TALLOW,	lb.	6½	"	7½
TOBACCO	do.	2	"	6
WHISKEY, American,	gal.	20	"	21
WOOL, Saxony,	lb.	35	"	50
Merino,	do.	30	"	35
Half-blood,	do.	25	"	30
Common,	do.	20	"	25

NEW YORK CATTLE MARKET—July 21.

At Market, 1000 Beef Cattle (200 from the South), 55 Cows and Calves, and 3000 Sheep and Lambs.

PRICES.—Beef Cattle.—The market continues languid, and our quotations to-day show no improvement on the prices of last week. Inferior and middling qualities $3.87½ to $4; Prime $5. Unsold 300.

COWS AND CALVES.—$13 to $27, according to quality, is the extreme range of the market. All sold.

SHEEP AND LAMBS.—Prices of Sheep from $1 to $2.50 *a* $3.00; Lambs 75 *a* $2.75 All sold.

—

REMARKS.—*Ashes.*—Transactions quite moderate. *Cotton* has advanced ½ of a cent since the reception of the late European news. Export since the first September last 22,045,812 bales; Same time last year, 1,558,249; same time, year before, 1,971,776. *Flour* and *Meal* dull. *Wheat* dull. *Corn, Rye,* and *Oats,* scarce. *Hay* is in good demand. *Provisions* brisk. *Rice* steady. *Sugar* firm at an advance. *Whiskey* rising.

Money plenty and interest at 5 to 7 per cent.

Stocks of the better kind rather more in request.

The Weather has been excessively hot and dry, more so than we have experienced before for years—the thermometer rising for days in succession from 95 to 98 at the greatest heat. Hay has been mostly secured, and proves not more than half to three fourths of a crop in this vicintiy. North and west of us, we understand, the yield is fair. It has risen to $13 and $15 per ton, here. Wheat is nearly all harvested, and the yield is larger than has been known for years. Rye, oats, and barley are not so good; but fair crops on the whole, with the exception of the straw, which is quite short. Corn is looking uncommonly well, North and West, and will be a good crop—at the South not as good as last year. We are sorry to notice the appearance of the rot in several patches of potatoes, and we have reason to believe now that it will be as extensive this year as it was last. From the other kinds of roots we have promising accounts. Fruit will be a moderate crop. Cotton, sugar, and rice, appear well—the complaints of damages being confined to a few narrow localities. Tobacco and hemp—many complaints of short crops.

CHOICE MERINO BUCKS FOR SALE.

The subscriber offers a few two year old bucks for sale, got by Mr. D. C. Collins' celebrated Rambouillet buck Grandee, out of superior pure bred Merino ewes. Price $20 to $50. Also pure bred Merino bucks of various ages, and at different prices, according to age and quality.

We can ship sheep to any port in the country. For an account of the shearing of our flock, we would refer to the August number of the Agriculturist, page 240, and believe our stock equal to any in the country.

Apply to LEWIS G. COLLINS, Washington, Duchess Co., N. Y., or to R. R. & L. G. COLLINS, Butternuts, Otsego Co., N. Y.

BOMMER'S METHOD OF MAKING MANURE.

One hundred agents are wanted immediately, to promote the general introduction of this valuable invention for the manufacture of Manure in New York, New Jersey, Virginia, Delaware, and in the six New England States. Unquestionable testimonials and responsible securities will be required for the faithful discharge of the duties of the appointment. Persons of suitable qualifications will find this both a useful and lucrative employment. Applications, if by mail, must be post paid, and directed to me at Westville, New Haven county, Connecticut.

Hundreds of testimonials from the best authorities, evince that no farmer who is sensible of the want of Manure, should remain destitute of this cheap and expeditious mode of its procurement. Any person forwarding five dollars, to the General Agents, with information of the writer's name, residence and address, shall be furnished with a copy of the method, with the right to use the same, without charge of postage.

ELI BARNETT, General Agent.

Westville, Conn., March 1, 1845.

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General Travelling Agent, ALONZO SHERMAN.

Bound volumes can be obtained of any of our Agents at $1.25 per volume.

NEW AGRICULTURAL WAREHOUSE.

Plows.—Having been appointed sole Agent for their sale in this city, the subscriber keeps constantly on hand a large assortment of the celebrated Premium Eagle, Subsoil, Double-Mould Board, and Side-hill plows, manufactured by Ruggles, Nourse & Mason, Worcester, Mass.

Also the Improved Geddes' Harrow, Rice's Seed Sower, Bacheldor's Corn-planters, Cultivators, &c.

Hovey's Straw-Cutter.—The best implement in the Union for the various purposes of cutting Cornstalks, Straw and Hay. These machines are of various sizes, and moved by Hand or Horse-power.

All of the above implements are offered at the manufacturers' **home prices.**

African Guano.—Fresh arrivals of this highly fertilizing substance, by the single bag or ton, with printed analysis of the same, and directions for applying it.

Ground Bones, Plaster and lime, in bags and by the barrel, cheap for cash.

A. B. Allen, 205 Broadway, New York.

FARMS FOR SALE.

The Farm in West Groton, known as 60 acres in the North East corner of Lot No. 63 Locke, consisting of a Farm House nearly new, Barn, and about Forty acres of improvement surrounded by a good fence, and now occupied by Robert Armstrong. Price, $1,500. One Thousand Dollars can remain on Mortgage for Ten years, at legal interest, half yearly.

Also,

The Farm known as the State 100 acres in the South East corner of Lot No. 2, Cicero, about a mile from the town of Brewerton, on the outlet of Oneida Lake, consisting of an improvement of 40 acres fenced, with log buildings, and 60 acres of Woodlands.

Also,

The Farm known as the State 100 acres in the South East corner of Lot No. 54 Hannibal, a short distance from the town of Fulton, on the Oswego River, good woodland, with a small clearing.

Also,

The Wood Lot known as the State 100 acres in the South East corner of Lot No. 5 Manlius, a few miles from Syracuse, and in a good neighborhood.

Also,

Wood lot known as the S. 100 acrs. in the S. E. c. of Lot No. 7 Solon.

"	"	"	"	"	"	"	19	"
"	Survey	50 acres	"	"	"	"	25	"
"	"	50	"	"	"	"	29	"
"	"	50	"	N. W.	"	"	36	"
"	"	50	"	N. E.	"	"	39	"
"	"	50	"	S. E.	"	"	58	"
"	Sub. 1	83	"		"	of lot	76	"
"	" 7	30	"		"	"	"	"
"	Survey	50	"	N. W. cor. of		"	98	"
"	State	100	"	S. E.	" of	"	65	Virgil
"	Survey	50	"	N. E.	"	"	68	"
"	"	50	"	N. W.	"	"	60	

Apply to JAS. L. BRINCKERHOFF,
f1 6t No. 32 Laight Street, city of N.Y.

DURHAM CATTLE FOR SALE.

Nine head of this valuable breed of animals are now offered for sale by the Subscriber, he having more than he can well keep on his farm.

Rose, 9 years old, a good milker, having given 25 quarts milk a day on pasture only. She is in calf by my prize bull Meteor, and will drop her calf about the middle of August.

Empress, nearly as good a milker as Rose. She dropped her calf about the 25th of June and will be bulled by Meteor.

Eunice, 5 years old, bulled by my imported Duke of Wellington, 25th June, is a good milker, her dam having given 32 quarts a day on pasture only.

Julia, 4 years old, recently bulled by Meteor.

Lily, 2 years old, bulled by Meteor 9th June.

Three yearling Heifers, got by Wellington and Meteor, and a yearling Bull got by Meteor.

These animals will be sold at $100 to $125 per head. A credit will be given of six months or a year, if desired, for approved paper.

Gentlemen desirous of procuring the blood of the celebrated herd of Thomas Bates, Esq., of Yorkshire, England, may now have an opportunity of doing so, as the young animals possess that blood on the side of their sires; and the cows are in calf by Meteor and Wellington. The cows are descendants of the Bullock stock of Durhams. For the good milking qualities of these animals, &c., I would refer to the editor of the American Agriculturist. Letters, post paid, will receive an answer.

Troy, July 25, 1845. GEO. VAIL.

WHEAT, RYE, OATS, AND BARLEY.

The subscriber will soon receive from Gen. R. Harmon a supply of his superior winter and spring Wheats for sale; and from others, the best kinds of Rye, Oats, Barley, &c., &c. Prices will be given in our next. A. B. ALLEN, 205 Broadway, N. Y.

RHEUMATISM ANNIHILATED.

DR. VAN BUREN'S RHEUMATIC EMBROCATION.

The proprietor of the Rheumatic Embrocation comes before the public, with increased confidence in the healing virtues of his remedy; for, since he first offered it to the public, it has been tried in the worst possible and most aggravated cases, over which it has completely triumphed; in some instances, indeed, where the patient had been given up by the attending physicians, as incurable, and in a great many cases, where all the remedies placed before the public, for the cure of rheumatism, had been faithfully employed without the least effect; thus proving its transcendent superiority.

It will allay the pain and soreness (sometimes in a few minutes), and reduce the swelling in a much shorter time than can possibly be effected by any other means; in fact will relieve when all others fail; nor can any injury result from exposure after its application. The patient will also be less liable to another attack, after being cured by this remedy, than by other appliances; as it cannot affect the constitution in the slightest degree, nor impair the parts immediately involved; but on the contrary, will restore them to their original healthy condition and usefulness.

One of the most important advantages this possesses, over all other remedies, is that, where it is properly applied, no contraction of the tendons can possibly ensue; and where contraction does exist, will effectually remove it; thus preventing any distortion of the extremities, and the patient from becoming a cripple for life, as is the case in thousands of instances, where other modes of treatment are adopted. The proprietor has received from various parts of the United States, and is receiving almost daily, the most flattering testimony to the curative powers of his Rheumatic Embrocation; and he feels now more justified than ever in asserting that it is a never-failing cure in all the various formsof rheumatism, chronic or inflammatory, and all complaints of an analogous character, such as contracted tendons, stiff or weak joints and back, sprains, bruises, &c., when faithfully and perseveringly employed. He cannot occupy the necessary space in an advertisement, or he would place before the public the documentary evidence of the truth of his assertions. But though he cannot do this, he is willing at any time to show them to all who may call upon him at his principal office, No. 56 Sand street, Brooklyn, Long Island, N. Y.

Agents solicited from all parts of the United States and the Canadas, and dealt with on favorable terms. Price $1 per bottle

M. VAN BUREN,
Sole proprietor.

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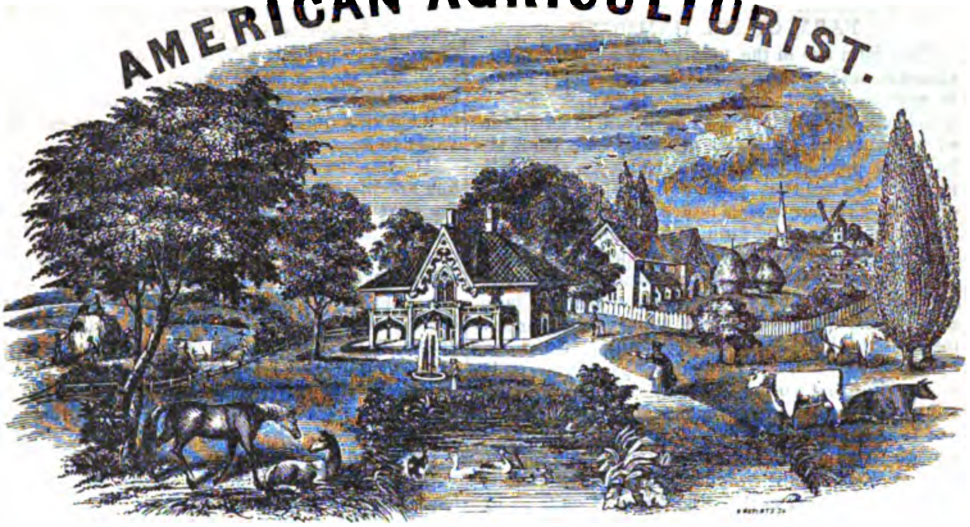
AMERICAN AGRICULTURIST.



Agriculture is the most healthful, the most useful, and the most noble employment of man.—WASHINGTON.

VOL. IV. NEW YORK, SEPTEMBER, 1845. NO. IX.

A. B. ALLEN, Editor. SAXTON & MILES, Publishers, 205 Broadway.

TO SUBSCRIBERS.

IT is so much trouble to get a Post Office order paid, and it requires so much formality, that our subscribers will please hereafter remit all moneys directly to Saxton and Miles, at their risk and expense; taking care, if possible, that the package does not exceed the weight of a half ounce, thus subjecting them to single postage only. Our agents also will please bear this in mind. We trust, under these circumstances, that all will be careful to remit bills of specie paying banks, otherwise the discount on them and postage will make a large deduction from the subscription price of the Agriculturist. We hope that this liberal arrangement on the part of the publishers will stimulate our friends to renewed exertions in behalf of this periodical.

PRESERVATION OF FRUITS AND VEGETABLES.

WHO does not love good fruits and vegetables? and yet how few take the proper pains to preserve them. We have given many different methods in the former pages of this journal, all very excellent, but have never tried the following, except in one instance of a large quantity of sugar beet, which was forced upon us by accident rather than design. It succeeded, however, admirably; and this emboldens us to give place to the method, which we quote from the Philadelphia Saturday Courier.

A gentleman from the northern part of Indiana recently communicated to us a fact in regard to the preservation of apples, which will be new to many of our readers, and valuable to all farmers. He says, that, to keep apples from autumn to June, he places them in a shallow hole, dug as for Irish potatoes, having covered the bottom with corn-stalks or straw, and the straw with dirt to the depth of five or six inches. No shelter is placed over them. As soon as the severe weather arrives, and the ground, and perhaps the apples themselves, become thoroughly frozen, straw is again placed over the frozen heap and the whole again covered with a coating of earth —this time, ten or twelve inches thick. The object is to keep the first coating of earth frozen until spring, and then to cause it to thaw very slowly.

The same treatment may be given to turnips, Irish potatoes, beets, and carrots. Any of these roots may be thoroughly frozen without injury, provided they are then covered well over, and suffered to thaw by slow degrees.

Sweet potatoes are almost the only exception among roots to this rule. They are injured by a small degree of cold, and without being frozen. It is only the sudden thawing that causes the dissolution of the apple or potatoe that has been frozen. If in the frozen state an Irish potatoe is put into cold water, until the frost is out, and is then cooked, it will be as good as if it had never been frozen. All these are facts which we know from our own experience, and that of many others.

TO PRESERVE GREEN CORN.

THE usual method of preserving green corn is, first to boil it, then cut the grain from the cob by hand with a sharp knife, and spread it out to dry. This is rather a tedious process; but when well done it keeps sweet for a long time, and proves a delicious dish boiled. Recently, pickling corn has been resorted to in order to preserve it, and is said by those who have tried it to answer well. The ears are gathered green and packed down in clean, tight casks, in brine sufficiently strong to preserve cucumbers. The brine must cover the corn completely, so as to seclude it from the air and prevent fermentation or decomposition. It will thus keep for a long time, and be sufficiently fresh for the table when boiled.

FARM OF MR. HAMMOND.

THIS farm lies in the town of Worcester, Massachusetts, and is one mile from the Court House. It comprises 121 acres, 17 of which are in wood land, 8, if we remember right, still in unreclaimed bog meadow, and 4 are taken up with yards and buildings, leaving, in fact, only 92 acres actually in tillage. We are thus particular in this statement, in order to show our readers how much may be realized from a moderate sized farm, of an ordinary quality of soil, when eligibly situated and properly managed.

But first of the man. Mr. Hammond is an excellent specimen of a hard-working New England farmer. He began the world with little or nothing saving his own hands, a good constitution, active and industrious habits, and indomitable perseverance. He informed us that for the first six years after becoming of age, he worked out by the month for other farmers, and from his wages at the end of this time had saved enough to set up for himself; but it was not till 1835 that he was enabled to purchase his present farm. When he came on to it the land was in quite an exhausted condition, the fences indifferent, and the buildings so miserable that neither man nor beast could inhabit them with any comfort. Now he has erected on it a noble barn of handsome architecture, 90 by 42 feet, which will hold 80 tons of hay, and has in addition numerous stalls for his cattle; built him a pretty two story house, and several outbuildings; made new fences; planted an ample garden with fruits and flowers; set out a large orchard of choice apple-trees; drained nearly worthless bog meadows, and transformed them into the best of grass land; cleared off the stone and enriched his land so highly that he gets on an average, 2 to 3 tons of hay per acre, 45 to 60 bushels of corn, and 40 to 50 of barley, where previously not half, and in some instances not one-third of these crops were gathered; and accomplished other things too numerous to mention: and all this, it must be understood, besides respectably supporting and educating his family, has been done from the earnings of the farm. Not a dollar is he in debt for it, and not a dollar has he brought in by foreign business to improve it, unless a few trades in selling off his aged animals, and buying younger ones to replace them, can be so considered.

How has this been done, we hear our readers ask. As we said in the beginning, Mr. Hammond's farm is within a mile of the town of Worcester, which affords a ready market for his hay, at the average price of $15 per ton, corn 75 cents per bushel, rye 87 cents, barley 75 cents, oats 33 cents, potatoes 30 cents, turnips 17 cents, milk 4⅛ cents per quart, and a good price for all the vegetables grown in a garden of between two and three acres. The farm now produces 75 to 80 tons of hay per annum; 150 to 200 bushels of corn; some barley, rye, or oats; 800 to 1000 bushels potatoes; 400 to 500 bushels turnips; vegetables from the garden, and considerable fruit. The stock is two horses, 4 oxen, 17 cows, and a few swine. The cows are kept for the purpose of supplying the citizens of Worcester with milk.

When Mr. Hammond began his operations here, he informed us that in order to fertilize the nearly exhausted soil, he took his produce to market, and after disposing of it, brought back manure. But this proving a laborious job, and learning the value of muck as a fertilizer, and having any quantity of it in a bog meadow, he commenced carting it into the barn-yard during the summer, fall, and winter, as he found time, spread the stable manure upon it, and thus ever since has made several hundred loads, annually, of a compost quite equal, he thinks, to ordinary barn-yard manure.

The rotation of crops here is adapted to the situation and market. Grass land is plowed in the fall, the next spring highly manured broad-cast, again plowed, and then well harrowed and planted with corn. The second year it is sown with barley. This grain is worth nearly as much as rye, and suiting this kind of soil well, nearly double the number of bushels per acre can be obtained of it that can be grown of rye. Grass seed is sown with the barley, and after that the land is kept in grass as long as it is thought profitable. Mr. Hammond's method of raising turnips is in accordance with an old practice in Massachusetts. The fore part of July the cultivator is passed up and down between the rows of corn, which cuts up all remaining weeds, and leaves the land free and light. Turnip-seed, of the common field kind, is then sown, and the men follow and give the corn its last hoeing. In performing this operation they cover the turnip-seed sufficiently well, and it usually produces about 100 bushels to the acre. One season Mr. H. got 650 bushels from four acres. We think it requires a very fertile soil or high manuring to warrant one in taking two crops at the same time; and though it may be presumptuous to differ from so good an authority, still we think if a single acre were devoted to ruta-baga, it would be better than raising the common turnip among corn, as the former is much superior to the latter in nutritive qualities, it keeps later and better, and 600 bushels may be obtained on an average from a single acre, and perhaps 800 to 1000 as highly as Mr. H. would cultivate them.

There are many other little things about this farm which we would gladly speak of had we space; suffice it to say, that Mr. H., so far from being satisfied with what he has already accomplished, thinks he is merely prepared now to realize something for his improvements. He will undoubtedly derive a handsome income from his farm hereafter, and manage it with much less labor. Yet this great truth has already been exemplified by him, namely, that land of a moderate degree of fertility, properly managed, can be greatly improved from its own resources, and at the same time respectably support those who cultivate it. For one, we feel grateful to Mr. H. for doing what he has, and we recommend all in his vicinity to visit his farm, and make themselves familiar with his practice; for a better example, as far as he has gone, we know not among our whole acquaintance.

SAMUEL B. PARSONS, ESQ., of Flushing, Long Island, has now returned from his European tour, and gives us hope of a continuation of his elegant letters. They will be found especially instructive to horticulturists. Mr. Parsons has selected large quantities of fruits, vines, shrubs, &c. &c., during his absence, and the establishment at Flushing, being extended to about fifty acres, is more worthy than ever of a visit from all amateurs of these things. The culture of good fruit must for a long time be a source of profit to those engaged in it, and we are glad to see an increasing interest in this matter.

WHAT IS PERFECTION IN CATTLE?

We doubt whether there is a person living—man, woman, or child, however ignorant or learned, or whatever may be his profession—who has not established in his own mind, the *beau ideal* of a bull, an ox, and a cow. But call upon such persons to define this *beau ideal*—this perfect animal—and not one in a million can do it, and then that one in the million will in all probability be oftener wrong than right. Why? Because, however many cattle the said person may have handled and bred, he has, after all, no *exact scientific notions* on the subject—no rule, or in other words, no *Scale of Points* by which to be guided in judging of the perfections or imperfections of an animal; and the only attempt which we have met with to establish one, has been done by the Jersey Agricultural Society. But this scale is quite partial, and applied to an inferior breed; it cannot therefore be exactly followed in judging of superior animals. We have long felt that until a *scale of points* could be established, to guide judges at cattle shows in their decisions, there would not only invariably be great dissatisfaction on the part of exhibitors in the decisions of the judges, but it would be utterly impossible for breeders themselves to make the improvements in their animals, which otherwise they would be enabled to accomplish. They are now like a fleet of vessels on the broad ocean—without quadrant and compass, and under orders for the *best port* in the country, and no instructions which that "best port" may be, but every Captain allowed to decide the point for himself.

We have hoped for several years past, that the English Agricultural Society would take up this subject and establish a scale of points; and we have endeavored repeatedly to get those breeders abroad with whom we are acquainted to move in the matter; but as yet have met with no success. If England, however, be not willing to do so, it is no reason that America should stand still. We, therefore, after much hesitancy and consulting with several of the best breeders in the United States, give the following rude outlines for the formation of a scale of points, which shall be the criteria to judge of and regulate the breeding of cattle. In drawing it up, it will be seen that several of the articles have been taken almost *verbatim* from that of the Jersey Society, to which we wish to give all the credit that is justly due it. We hope it may have the happy tendency to set breeders thinking on the subject, trusting hereafter that a convention of them may settle on something which shall prove an infallible guide to regulate their movements, in producing cattle. In reading over this scale, many will ask, why is this article put down at 1, or that at 4, or another at 6, &c.? We can only answer for the present, that it would require a volume to give the reasons, and after all, we could not explain ourselves fully; for in order to make a good breeder, a person must have a *natural talent* for such things, the same as for mathematics, oratory, music, or painting; precept and practice with him must then go along together—and a *great deal of them*. We once heard a person observe, after looking over two or three herds of cattle and holding a little chat with their breeders, "Ah, now I know all about it." Vain, conceited, superficial man! The best of us may study and practise our whole lives in breeding animals, and then we have a *great deal to learn*.

In drawing up this Scale of Points, it has been done for the Durham breed of cattle, because they are the most perfect. It may answer, however, with the distinctions below, equally well for Herefords and Devons—the only other breeds worth talking about. For Herefords, this distinction should be made: a white and rather long upturned horn; a white as well as yellow nose; color mainly red, with or without a line back; but some (if not all) white invariably in the face or under the belly. For Devons, a long yellowish-white horn, generally turned very much up, yet not unfrequently standing out horizontally or nearly so from the head; color a deep, bright red, with a patch of white about as large as the hand occasionally showing on the navel and directly around it, and silver hairs in the tail. Anything showing differently than the above it may be assured is a grade or unimproved beast, and should be invariably stamped as such. For a figure illustrating what is technically termed the *points* of cattle, we refer to volume second, page 70.

Scale of Points for Durham Bulls.

Points

ART. 1.—Purity of breed on male and female side; sire and dam reputed for docility of disposition, early maturity, and aptitude to fatten. Sire a good stock-getter. Dam a good breeder, and giving a large quantity of milk, or such as is superior for making butter or cheese, - - - - 7

ART. 2.—Head muscular and fine. The horns fine and gradually diminishing to a point; of a flat, rather than of a round shape at the base; short, and inclined to turn up; those of a clear, waxy color to be preferred, but such as are of a transparent white slightly tinged with yellow, admissible. Ears small, thin, and covered with soft hair; playing quick and moving freely. Forehead short and broad, especially between the eyes, and slightly dished. Eyes bright, placid, and rather prominent than otherwise, with a yellow rim round them. Lower part of the face clean, dished, and well developing the course of the veins. Muzzle small. Nose of a clear orange or light chocolate color. Nostrils wide and open. Lower jaw thin. Teeth clean and sound, - - - - - 5

ART. 3.—Neck fine, and slightly arched; strongly and well set on to the head and shoulders; harmoniously widening, deepening, and rounding as it approaches the latter point. No dewlap, - 2

ART. 4.—Chest broad, deep, and projecting—the brisket on a lower line than the belly, - - 5

ART. 5.—Shoulders broad, strong, fine, and well placed. Fore legs short, straight, and standing rather wide apart than narrow. Fore arm muscular, broad, and powerful; slightly swelling and full above the knee; the bone fine and flat. Knees well knit and strong. Foot flat and in shape of an oblong semi-circle; horn of the hoof sound, and of a clear, waxy color, - - - - - 2

ART. 6.—Barrel round and deep, and well ribbed up to the hips, - - - - - 4

ART. 7.—Back short, strong, straight and broad from the withers to the setting of the tail. Crops round and full. Loins broad. Huckle bones on a level with the back. Tail well set, on a level with the back, or very slightly below it; fine, and gradually diminishing to a point, and hanging without the brush an inch or so below the hock, at right angles with the back, - - - - 4

ART. 8.—Hind quarters from the huckle to the point of the rump long and well filled up. Twist well let down and full. Hind legs short, straight, and well spread apart; gradually swelling and rounding above the hock; the bone fine and flat below. Foot flat, and in shape making an oblong semi-circle. Horn of the hoof sound, and of a clear, waxy color. Legs not to cross each other in walking, nor to straddle behind, - - - 3

Art. 9.—Skin of a medium thickness; moveable and mellow; a white color is admissible, but a rich cream or orange much preferable. Hair well covering the hide; soft and fine, and if undercoated with soft, thick fur in the winter, so much the better. Color, pure white, red roan, bright red, or reddish yellow and white. (A black or dark brown nose or rim round the eye; black or dark brown tips of the horns; black or dark spots on the skin and hair decidedly objectionable, and indicative of coarse meat and bad blood). - - - 3

Art. 10.—Good handling, - - - 4

Art. 11.—Sure stock-getter, - - 4

Art. 12.—Stock, when made steers, certain to be good workers in the yoke, and feed kindly for beeves at any age, and make prime beef, - 5

Art. 13.—General appearance, - - 2

Perfection, - - - - 50

Scale of Points for Durham Cows.

Points.

Art. 1.—Purity of breed on male and female side; sire and dam reputed for docility of disposition, early maturity, and aptitude to fatten. Sire a good stock-getter. Dam a good breeder; giving a large quantity of milk, or such as is superior for making butter or cheese, - - - 7

Art. 2.—Head small and tapering; longer and narrower in proportion than that of the bull. Horns fine and gradually diminishing to a point; of a flat rather than of a round shape at the base; short, and inclined to turn up; those of a clear waxy color to be preferred, but such as are of a transparent white slightly tinged with yellow, admissible. Ears small, thin, and well covered with soft hair; playing quick and moving freely. Forehead of good breadth between the eyes, and slightly dished. Eyes bright, placid, and rather prominent than otherwise, with a yellow rim round them. The lower part of the face clean, dished, and well developing the course of the veins. Muzzle small. Nose of a clear orange, or light chocolate color—the former much preferred. Nostrils wide and well opened. Lower jaw thin. Teeth clear and sound, - - - - - 5

Art. 3.—Neck fine and thin, straight, and well set on to the head and shoulders, harmoniously widening, deepening, and slightly rounding in a delicate feminine manner as it approaches the latter point. No dewlap, - - - - 2

Art. 4.—Shoulders fine and well placed. Fore legs short, straight, and well spread apart. Fore arm wide, muscular, slightly swelling, and full above the knee; the bone fine and flat below. Knees well knit and strong. Foot flat and in shape of an oblong semicircle. Horn of the hoof sound, and of a clear waxy color, - - - 2

Art. 5.—Chest broad, deep, and projecting—the brisket on a lower line than the belly, - 5

Art. 6.—Barrel round, deep, and well ribbed up to the hips, - - - - - 4

Art. 7.—Back short, strong and straight, from the withers to the setting of the tail. Crop round and full. Loin broad. Huckle bones on a level with the back. Tail well set, on a level with the back or very slightly below it; fine and gradually diminishing to a point; and hanging without the brush, an inch or so below the hock, at right angles with the back, - - - - 4

Art. 8.—Hind quarters from the huckles to the point of the rump long and well filled up. Twist well let down and full. Hind legs short, straight, and well spread apart; gradually swelling and rounding above the hock; the bone fine and flat below. Foot flat and in shape of an oblong semicircle. Horn of the hoof sound and of a clear waxy color. Legs not to cross each other in walking, nor to straddle behind, - - 3

Art. 9.—Udder broad, full, extending well forward along the belly, and well up behind. Teats of a good size for the hand; squarely placed with a slight oblique pointing out; wide apart; when pressed by the hand the milk flowing from them freely. Extra teats, indicative of good milking qualities, but should never be milked, as they draw the bag out of shape. Milk veins large and swelling. Milk excelling either in quantity or quality for making butter or cheese, - - - 5

Art. 10.—Skin of a medium thickness; moveable and mellow; a white color is admissible, but a rich cream or orange much preferable. Hair well covering the hide; soft and fine, and if undercoated with soft, thick fur in the winter so much the better. Color pure white; red roan; bright red; or reddish yellow and white. (A black or dark brown nose, or rim round the eye; black or dark brown tips of the horns; black or dark brown spots on the skin and hair decidedly objectionable, and indicative of coarse meat and bad blood.) - - 3

Art. 11.—Good handler, - - - 4

Art. 12.—Sure and good breeder, - - 4

Art. 13.—General appearance, - - 2

Perfection, - - - - 50

If the above Scale of Points meets with favor on the part of our readers, we shall follow it up with those for horses, jacks, jennies, mules, sheep, swine, and poultry. We recommend the same thing to our nurserymen in fruit, and indeed to everything exhibited. Why should not vegetables, butter, cheese, agricultural implements, flowers, as well as everything else, have their scale of points by which to be judged on exhibition? English florists have a Scale of Points in judging of flowers.

AGRICULTURAL CHEMISTRY AND GEOLOGY.—No. II.

Q. What is silica?

A. Silica is the name given by chemists to the substance of flint, of rock-crystal, and of sandstones.

Q. What is chlorine?

A. Chlorine is a kind of air which has a greenish-yellow color, and a strong suffocating smell. A taper burns in it with a dull smoky flame. It exists in common salt in large quantity.

> The teacher will exhibit a bottle of this gas, and may advert to the remarkable fact that this very noxious gas should form more than half the weight of the very wholesome substance common salt, 100 lbs. of common salt containing 60 lbs. of chlorine. This gas is readily prepared by pouring muriatic acid on black oxide of manganese in a retort, and applying a gentle heat. It should be collected over hot water.

Q. Do plants require food as animals do?

A. Yes, all plants require constant supplies of food in order that they may live and grow

Q. Where do plants obtain their food?

A. They obtain it partly from the air and partly from the soil.

Q. How do they take in their food?

A. They take it in by their leaves from the air, and by their roots from the soil.

Q. In what form do plants take in organic food from the air?

A. In the form chiefly of carbonic acid gas.

Q. What is carbonic acid gas?

A. It is a kind of air which has no color, but has a peculiar smell. Burning bodies are extinguished in it, and animals die, and it is heavier than common air. It causes the boiling up of soda water, and the frothing of beer, and forms nearly half the weight of all limestone rocks.

Q. If plants always draw this organic matter from the soil, will the soil not become gradually poorer and less productive?

A. It will, if badly managed and constantly cropped.

Q. Then how can you keep up this supply?

A. By plowing in green crops,—by growing clovers and other plants which leave long roots in the soil,—by restoring all the hay and straw to the land in the form of manure,—or by laying down to pasture.

> The teacher may illustrate this answer beneficially, by referring to the practice in his own or the neighboring towns, and pointing out its advantages or defects.—*Professor Johnston.*

SUBSTITUTES FOR A SHORT HAY CROP.

We again advert to this subject; but as the season is so late, it will be more for the benefit of the southern than the northern farmer, as the time has passed by, this season, to sow or plant anything for fall or winter food in this latitude. Farther south, however, turnips may be sown and grow to a good size before being injured by the frost. Rye also can be sown for winter pasture. Hay is now worth from $15 to $20 per ton here; if we had any to spare to ship to the south, it would arrive there charged at so high a price that few could afford to buy. We hope the planters will take care that their townspeople are not in want, for we have little desire to see fodder going from mouths which can ill spare it, to sustain those which have the ability, as we hope they may exercise the will, to cater from their own fertile lands and in their more genial climate for themselves. We should like to know if this point is settled; does the Bermuda grass of the south make hay equal to the timothy and red-top of the north? We have heard some enthusiastically assert that it does; but we have our doubts in this matter. Certain it is, it may be greatly improved by judicious top-dressings, and paying due attention to the time and manner of curing. Will some of our southern friends speak out authoritatively on this subject?

THE STABLE.

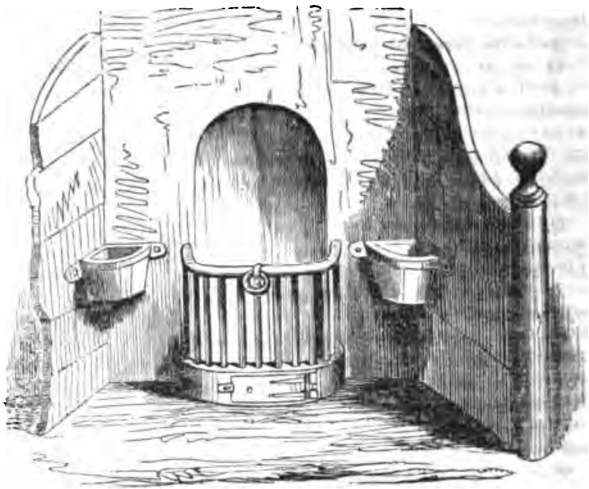
Hay-Racks.—In stables the hay-rack is of great importance. In a good stable we would rank in the order of necessity, 1st. *Thorough ventilation and lighting.* 2d. *Cleanliness,* which can only be effected by proper floors, gutters, and facility for removal of dung. 3d. *Size of stalls;* and in this we include the length as well as width of the stall, for the stall should be at least nine feet long, with its floor ten feet. 4th. *Hay-racks.*

Racks have much to do with the comfort of a horse, and especially with a tired one. If the rack be a proper one he can easily fill himself and go to rest; if a bad one he is much longer in doing this, and his rest delayed; and if he be a strong feeder, he feeds and does not rest; if a poor feeder (that should always be urged to eat) he goes to rest hungry. The strong feeder obtains the food but not the rest to enable him to do his work the next day; the poor feeder the rest, but not the food. Both are sufferers, and, if the work be long continued, lose condition and are *used up.*

Hay-racks seem almost universally constructed with a view to render them hard to be filled; to blind the horse by falling seeds; to foul the hay with the breath of the horse; to prevent the horse getting the hay; in short to economise labor and waste labor; to economise hay and waste hay; but never to save the horse trouble and labor, and secure him food in abundance, readily got. A rack should present the reverse of all this: it should be easy for the groom to fill; easy for the horse to empty; it should not admit the hay to be fouled by the breath of the horse, nor the hay-seed to blind the horse.

Stalls are usually constructed on the sides of the stable, with the hay-loft over-head. The heads of the horses stand to the sides of the stable. The racks are in front on the sides, and open to the loft. The racks slant in front from the bottom up, are perpendicular behind, narrow at the bottom, wide at the top, and project over the horse's head. Such racks have no one excellence or convenience. Being on one side they are hard to fill; the roof being rarely more than two or three feet above the mouth of the rack-hole, access to the rack is not easy. The rack being wide above and narrow below, the hay gets wedged in, and is difficult to be eaten out, and when eaten out below does not fall from above. The projection of the rack occasions the seed and dust of the hay to fall into the eyes and ears of the horse; and also places the hay just in the most convenient place to be made foul and disgusting by the ascending breath of the horse.

Now, what are the requisites of a good rack? The opening of the rack into the hay-loft should be above, or higher than the floor of the loft. If on a level, the dust and seed which get shaken out of the hay on to the loft floor, will be pushed into the rack-hole, and fall into the rack, to fill the eyes, the ears, and the nose, to the injury of sight, hearing and breathing. The opening from the loft into the rack should be wide, to admit the hay easily; for a lazy groom will not fill the rack if it cost him much labor. The front and back of the rack should be perpendicular, and it should be at least two feet wide—far better if it be three. The bottom of the rack should be some little below the level of the horse's mouth when held naturally; and should have an inclination forward of one foot in three, and be perfectly smooth. This descent and the smoothness will bring all the hay to the front of the rack at the rungs or slats. The rungs or slats should not be more than two feet long, and the space above them should be boarded up tight all the way to the ceiling. The rungs should be round, just wide enough, and no wider, to admit the nose of the horse, and should not go quite to the bottom of the rack. There should be an opening with a door in the bottom, on the front, near the bottom of the rack to let out the seed and dust. Such a rack as here described is free from all the objections to which ordinary racks are liable.



HAY-RACK. Fig, 64.

Besides the rack we have described there are two others. The one is placed against the wall, in front or above the horse, but has no connection with the loft. The slats may be perpendicular or slanting. If the slats be perpendicular and the rack be of the proper height, it embraces all the excellences of the one we have recommended. Such a rack may be seen in our cut, in the July number. The only objection to this is that it is slanting. There is still another rack, Fig. 64 above, which is placed below the horse's head, but has no connection with the loft. In every respect it is such a rack as we recommend, except that it should be placed two or three feet higher, according to the size of the horse to feed from it.

This is a good rack, which our cut shows, if but little hay be given at a time, and that little often, as to training horses; the only objection to it is this necessity of feeding the hay little and often; where from the nature of the work, or from any other cause, this can be done, there is no rack like the low one. But if much hay is to be given at once, the horse in this rack will cull it over and leave a portion, which in the end becomes so loathsome that he will not eat it, except compelled by dire hunger.

A nearly perfect rack may be seen in the cut of Mr. Pell's stables, in the number for June, page 185. The rack is a little too high, and the slats are too long. The bottom of the rack should be on a level with the bottom of the manger. If the rack were that much longer, and the slats or rungs shorter, no breath would foul the hay, and no seed and dust annoy the horse.

In our next we shall treat of mangers, and the materials of which racks and mangers should be made.

FENCES.

Under this head the last number of the English Agricultural Society Journal contains an able article from the pen of Mr. Grigor. We are glad our own articles on this subject were written several months before this was published, otherwise we should have been accused of plagiarism. Of the evils of the present system of hedge fencing he thus speaks in heads to paragraph divisions, adding to each elaborate reasons for the positions he takes.

1. Our fences are injurious, and that to a great extent, because they harbor and are a protection to all sorts of weeds. 2. They harbor and protect snails, slugs, &c. 3. They harbor a great many birds, and afford every encouragement to them in the building of their nests. 4. They are highly objectionable on account of their size. 5. They are injurious on account of their number. 6. The same, on account of their containing timber-trees. 7. The same, on account of their shade. 8. The same, on account of the great exhaling surface they present.

Some of the above objections, owing to the difference of climate in America, would not hold good with us; but here is one startling enough. Mr. Grigor calculates that if the fences in England could be properly reconstructed, *one million two hundred and eighty thousand* acres of good land might be gained for cultivation! We can only regret that he did not go a step further and tell us how much might be gained by abolishing the useless things altogether. We commend this article to the attention of our readers.

The Maine Farmer, in speaking of our late attack on fences, says, "the Agriculturist seems to have enlisted during the war." It certainly has; and in addition to the various missiles for attack that can be gathered together at home, we shall call into aid all the foreign shells and shot which can be imported from abroad. Will our contemporary please manufacture a little powder for us, to aid in charging home some new guns?

THE PRICE OF WOOL.

We are daily asked, is wool likely to rise, or will it fall still lower than it now is. Without any pretensions to sagacity sufficient to peer into the future, we will answer simply, that we think wool will be a trifle lower before it is higher, and then that it will rise somewhat in price, though there is little prospect of its rising as high this year as it did the last.

Our reasons for a rise in price are these: 1st. At the present low rates considerable quantities are going forward to Europe, which will ease the market a little in its present crowded state, of the very fine qualities. 2d. Business, upon the whole, is opening better for the fall trade than it was supposed it would, and we are of opinion there may be a greater demand for woollen goods than the manufacturers and merchants anticipated, a month since. 3d. The short hay crop will cause a great many more sheep to be killed this fall than ordinary, thus reducing the flocks so considerably, that the weight of the clip next year will not be increased in proportion to the ratio of inhabitants. Another thing, the flocks will not be wintered as well the coming season as they were the past, and consequently will not yield so much wool per head in the shearing of '46 as they did in that of '45.

But we must confess we are far from wishing wool to be much if any higher than it now is, because we do not think it for the general interest of the farmers that it should be. It bears a good proportionable price now to other products, and it must be recollected that the cheaper it is the more there will be consumed of it, and the more easily will our manufacturers be enabled to compete with foreigners, and thus increase our manufacturing population, who will be customers to the farmer for flour, meal, and other products. Besides we wish to produce wool so cheap as to be able to put an end to all importations of this article, and greatly extend our exports, which we are perfectly satisfied the shrewd and enterprising Americans will make haste to do. It would be a great boon to the United States to be able to come in for a large share of the English and French wool markets. This is a prize well worth contending for; and so far from being discouraged at the present low price of wool, every farmer should endeavor to make it *higher* to himself by improving his breed and *producing* it *cheaper*. Do this and we may defy competition, and make that profitable among ourselves, which would be attended with a loss to others. The Spanish proverb is, "wherever the foot of the sheep touches, the land is turned into gold." May this prove to be the case with American farmers; and in order to hasten the realization of it, not only let them grow and use more wool, but eat more mutton and much less pork—for the former is by far the healthiest and cheapest.

NEW AGRICULTURAL WARE-HOUSE.

The public has long felt the necessity of a more extensive agricultural warehouse in this city, where the farmer can obtain everything he may want in the way of implements and field-seeds, with the assurance of their being of a first-rate quality. Having been repeatedly solicited by numerous friends to commence an establishment of this kind, we have at length yielded to their wishes, and opened a commodious store at 187 Water street, with the most complete assortment yet offered in New York. We now respectfully solicit the attention of our friends and the public to it, and trust that so far as our establishment is found deserving we shall be favored with their custom. Agricultural mechanics have always been a favorite study with us, and many an implement have we made with our own hands. We profess to know as much of the good qualities of an axe, a plow, a harrow, a hoe, and indeed most farm implements, as we do of those of a horse, a cow, a sheep, &c.; and we hope not only to be able to select the best of each kind for our customers, but even to suggest improvements in many things already in use. We can be of considerable service to mechanics in this way, and also to the growers of improved grain, grass, and roots. Nor shall we in the mean while forget our love for fine stock; but will continue to execute all orders sent us for the purchase of superior animals. We trust that none of the readers of the Agriculturist will think, in consequence of our undertaking the management of an active business, that our periodical will be neglected. Quite the contrary—as we have arranged to have it move on with greater ability and variety than ever; and they will see, that however actively employed, we shall not forget to give them rare matter for thought and practice from month to month, and many a useful hint for the improvement of their farms, gardens, and stock.

And one word to our editorial brethren. We have been ever ready to lend them a helping hand, and say a good thing in their favor, when their pleasure or interest was concerned. Whatever little notice they can conscientiously give in their columns of our new enterprise, we shall take as particularly kind, and be happy to reciprocate the favor any time they may desire.

PRUNING STONE FRUIT IN THE FALL.

Have any of our readers ever made experiments between pruning peach trees and other stone fruit, in the fall, summer, and spring? In the following article, taken from the Gardener's Chronicle, the writer contends that the former season is best in England; yet we doubt whether his reasons will hold good in the drier climate and more frosty winters of this country; and we are still of opinion that the months of May and June are the best here for pruning peach as well as all other trees.

"It is a well known fact that just before or just as the leaves are falling in autumn, when sufficient sap is in motion, and in its downward course, a more speedy and perfect cicatrization will be effected than in spring. Those who have been in the habit of making cuttings of shrubs, &c., well know that if the cuttings are put in early in autumn, success is beyond a doubt, but if they are delayed until late in the season, or until spring, that failure is as certain. In the former case a callosity is formed by the descending sap, and roots are eventually sent out, and a plant is established; in the latter, no callosity is formed, and the cutting dies. It may be inferred from this, that the wounds are healed by the descending sap before the approach of winter; so much so, that no moisture can enter from without, and hence no injury can result from frost. There is another important consideration which must not be overlooked in favour of autumn pruning. In many parts of England the young wood of the peach does not ripen to the extremities, more particularly in wet seasons, and the consequence is that early frosts rend the bark in all directions, the sap escapes, and the unripened part of the shoot dies. This is of common occurrence. Were their shoots shortened in autumn instead of in spring, just while there is action enough left to heal the wounds perfectly, the declining energy of the tree would be economised; for instead of being uselessly expended in assisting to repair the extremities of the shoots which are ultimately to be cut off, it would be husbanded in the parts left, which would of course be greatly strengthened, and the buds would also assure a prominent, healthy and vigorous appearance. I am strongly of opinion that autumn is decidedly the best time for pruning every kind of stone fruit, for the reasons I have advanced."

STORING CABBAGES.

A very good and compact method of storing cabbage is, in the same manner that we have practised with the sugar beet. Select a dry piece of ground, cut the heads of the cabbage from their stumps, and place them in parallel rows, with the top part down, and any desired length or width. Make these rows one less in width and length every layer, so that when the heap is finished it will come to a point, and appear very much like a pile of cannon ball in an arsenal. Over this heap place a covering of straw, and then put on the dirt sufficiently thick, the same as on a potato heap, to keep out the frost, and the work is done. The earth should be spatted down hard on the four sides, making the top sharp, like the roof of a house so as to shed rain well. If the ground where the cabbage is stored be of a heavy clay, it should be trenched round the heap so as to carry off the water, and a bed of straw or round logs six inches or a foot thick be made for it to rest upon, and as a drain for all moisture, it being quite important that vegetables of every kind be kept dry.

Newly Budded Peach Trees.—We wish to know at what price we can obtain five thousand young peach trees, recently budded with the best varieties of this fruit.

Removal.—We have now removed our office to the new Agricultural Warehouse, No. 187 Water street, where we shall be happy to see our friends at all hours during the day.

NEW YORK FARMERS' CLUB.

At the meeting held on the 5th of August, Thos. Jeremiah, Esq., in the chair, the subject of *Manure* was discussed.

Mr. Kerr thought that the farmers should rely more upon their own resources for making manure, instead of going abroad for it, and that nearly every farm was capable of supplying all that was necessary to keep up its fertility.

The Chairman gave his practice on Staten Island of making composts with fish, muck, and peat.

Dr. Underhill spoke highly of guano, but acknowledged, from want of knowing how to properly apply it, and the unexampled drouth, its use among the farmers this season had not been as beneficial as was anticipated. The greater amount of moisture in England was highly beneficial to it.

Mr. Fleet replied that nearly every kind of manure failed of beneficial action in a drouth, though a compost of muck suited it the best.

The Chairman said he would incorporate the muck with the guano.

Insects—*Col. Clark* presented the root of a young peach tree, exhibiting the destructive effect of the insect; about three inches above, and as many below the face of the earth, both bark and wood, were gnawed by that enemy.

Mr. Kerr—The course of insects may be traced—Farm-yard manure undergoes a fermentation suited to the development of many insects, a mass of it may be seen teeming with them. These with the manure are spread upon the land, and are ready for the vegetation to which their habits attach them. My friend, Judge Ball, of Hoosick, in this State, composted manure with one part of lime, three of manure, and a fifth or sixth of the whole, loamy earth. He formed many heaps of this compost. In a fortnight afterwards, the change in the masses was astonishing, taking a dung fork and opening the tops of the heaps thick smoke issued from them. In four weeks time I examined them for insects and could not find one, even the flies would not touch the heaps. Some heaps that had no such treatment were moving masses of insects. Lime produced, instead of the putrefactive process, the Dry Rot or Eremacausis; this destroys not only insects, but seeds of weeds. The smell from the common dung heaps was offensive, that from the compost not at all so. Actual experience has proved, that in two fields adjacent, one manured with compost had few, if any insects, while the crop of the other with common farm-yard manure, was destroyed by them.

Dr. Underhill—To avoid the fly and the worm in wheat, sow early or late; when your grain has attained some height, you will find the nits of the insects on it—then turn in sheep or young cattle, who will eat off all the blades, nits and all. If you sow late, you avoid the nits—you may miss them; besides, the manure left by your sheep is very good for your crop. I know but one remedy which is easily tried, and is said to be effectual. It is quick lime, slacked perfectly fine; when dried take it with your three fingers (just as you do grass seed) all over your wheat field soon after the wheat is in blossom, and when you see the flies hovering over the field—sow in this way about two pecks of lime on an acre. The dew will moisten the lime, and it then reaches the insect larvæ and kills them. This process has saved a whole wheat crop on one field, while a neighboring one was destroyed by the worm.

I was annoyed in my vineyard by the rose-bug. I first picked them off into basins with water in them—held them under the vines, and touched them and the bugs fell in. I killed many basins full in this way. At length I discovered whence all these bugs came. I observed that they issued from holes in the ground, like a pepper box. They first crawled up the trees—gradually acquired the use of their wings—had remained all winter in the ground, and the new progeny return to it in the autumn. By ploughing late in the fall, I turned them up to freezing weather, and thus got rid of them all but a few. What few now remain I have pinched off by my workmen.

At the meeting held on the 19th of August. Dr. R. T. Underhill in the chair,

A letter from *John Van Wyck*, of New Hamburg, to A. B. Allen, on the subject of Marl, accompanied with various specimens of it, was read.

Chairman—Marl is chiefly formed from decomposed shells; lime therefore becomes the principal ingredient. Potash and soda are also found in it, and are the best parts of it. The Jersey marl is very valuable, principally on account of the constituents—soda—alkalies generally. The alkali is the most important part of it. In order to determine the presence of these invaluable principles in the marls, or our soil, how indispensable a chemical analysis.

Mr. Kerr—In shells there is a large portion of the phosphate of lime. Pownal, in Vermont, has large deposits of marl with shell, in a soft condition. I analysed a specimen, and found only a very slight trace of phosphate of lime. The marl before the Club resembles the Pownal marl.

A. McDonald, Esq., of Alabama, rose, being introduced to the club, and said—I am told here that I am perfectly at home. I will therefore speak.

Chairman and Secretary—Yes, sir, you are perfectly at home, and we shall be happy to hear you.

Mr. McDonald—This is the first time I ever was present at what is called a Farmers' Club. I came here to see your Agricultural Society. Everything relating to agriculture interests me deeply. I am from Eufalla, in Alabama, in latitude 31°. There we have an abundance of blue marl. We find it everywhere in the state. I had last year 4,500 bushels drawn upon my farm. Dr. Means, of Georgia, analyzed it. I composted it with straw, and let my cattle trample and let fall their droppings upon it, and it proved to be excellent manure. Our soil requires this dressing, much of it, for the surface is not generally fertile in itself. Some farmers made mistakes in managing it. I put my marl compost in the drills where I planted my cotton, and that cotton grew as large again as the other did. I am for a thorough analysis of soils, in order to decide positively what kind of manure one ought to apply. We in Alabama are asking our Legislature for a protective agriculture. The Almighty has placed the marl where it is required. I present to the Club specimens of my cotton of 1844. It is green seed cotton, short staple, raised by me by good management, so as to be worth three cents a pound more than the ordinary best crops.

This cotton was examined by the Club, and admired for its beautiful silky quality.

Mr. Meigs—Martin E. Thompson invited me to look at two grape vines he had been raising. Last spring they were about three feet high. He placed a zinc plate in the ground near one of them, and a copper plate in the ground near the other—they being about twelve feet apart. He connected the two plates by a galvanized iron wire, and attached the tendrils of one of the vines to the wire, and that vine has grown sixteen feet. The other vine was not attached to the wire, and has grown four feet.

AGRICULTURAL TOUR.

Enjoying the pleasure of a visit to your city, and a personal acquaintance with yourself, and having taken some interest in the promotion of agriculture, I will offer you a few thoughts on the subject that you are endeavoring to advance. I reside, as you know, in the southern part of Alabama, in what is termed the cotton-growing region. At the commencement of the present year, quite a number of meetings were held for the purpose of adopting some plan to reduce the quantity of cotton planted. So far as I have been enabled to get information in my journey through the states of Alabama, Louisiana, and Mississippi, the crop of cotton planted this year has been equal to the last; but owing to the severe drouth that has prevailed throughout the states of Georgia, South Carolina, and Alabama, the crop of cotton will be reduced greatly, and the crop of 1845 will fall off to an extent heretofore unknown, from the want of rain. The crops of wheat, corn, and hay, in the states of Illinois and Indiana, will be good. Indeed, from the best information I could get on my recent journey through those states, they would be abundant, though they suffered from the immense floods of rain which fell during the month of June; for while the southern states were literally burnt up, the western states were half drowned.

In my trip through the west, I had the pleasure of examining several extensive nurseries. The nursery of Mr. Curtis, of Edgar county, Illinois, is a very fine one. This gentleman has purchased several farms from the sale of his fruit trees. He has ten acres in his nursery, and employs ten hands. The nursery of Mr. Mc'Kintosh, of Cleveland, I found to contain thirteen acres. It appeared in a highly flourishing state. The nursery of Mr. Bryant, of Buffalo, is larger than either of the others, with a greater variety of fruit, shrubs, &c. These enterprising gentlemen, at the same time that they are promoting their own interests, will add much to human comfort and luxury. I had the pleasure of attending the Farmers' Club of your city on the 19th inst., at the American Institute. The subjects discussed were of a highly important character. The value and properties of marl and mud, applied as manure, received that attention that their importance deserved, and much light was thrown out that could not be other than useful to the farmer and gardener. The subject of insects, the causes of their increase, and the best mode of destroying them, was next treated of: this also is a most useful and interesting matter to the cultivator of the soil. After spending two hours with the Farmers' Club, I came to the conclusion, that if those Clubs could become universal throughout our entire country, the greatest good would result to the cause of agriculture.

Alexander McDonald.

New York, Aug. 21, 1845.

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The respected writer of the above has been making an agricultural tour from the south, through the west, and then east We have been highly gratified with his personal acquaintance, and hope other planters will annually follow his example. They will find a hearty welcome here, and for one we shall endeavor to place them in the way of seeing such things as best exemplify our agriculture. We trust that Col. McDonald, as well as other southern gentlemen, will attend the State Agricultural Society show at Utica, for there they will see congregated together as fair a sample as this state can give of its farmers and their productions.

VARIETIES OF THE STRAWBERRY.

I have perused the very intelligent article on the Strawberry Culture, from N. Longworth, Esq., of Cincinnati, in your August number, which fully accords in its principles with the views of my father, the late Wm. Prince, as well as with my own experience. And most singular is it, on the other hand, that Mr. Downing should, at this late day, have blundered into the same errors as some previous compilers. There is one other point requiring investigation, which is that the strawberry referred to by Mr. L. as the "Hudson," is a misnomer. I had made a note to this effect a year since, on perusing a former communication from his pen, with the intent of noticing the error. I will now describe the genuine variety.

Hudson's Bay.—*Thom. Pom. Man. Down. Prince's Catalogue for more than* 50 *years.*

Hudson's Bay Scarlet.—*Hort. Trans., London.*

Hudson's Pine, *of Scotland.*

Mulberry, *Ken.*

Fraisier de la Baie de Hudson, *of the French publications.*

This variety, the native Scarlet of our forests, and the English red wood, are the most ancient strawberries of extensive culture in this vicinity, and probably throughout our country generally. It was sent from our nurseries to the London Horticultural Society shortly after the formation of that noble institution. In the Pomological Manual, published by my father and self in 1831, it is thus described.

"This variety is more extensively cultivated for supplying the markets of New York than any other

The fruit is quite large, with a neck, irregularly shaped, approaching to ovate, and of a dark rich shining red hue; the seeds are unequal in size, and deeply embedded, with ridged intervals; the flesh is a pale scarlet, firm, hollow, with a core, of good quality, with some acidity. The berries should not be gathered until they assume a dark color, and are fully ripe, as otherwise the acidity of the fruit predominates, and injures their flavor."

To this very ample description, published fourteen years ago, I have nothing to add except in respect to one peculiarity of the fruit, which is that the point or extremity remains green long after the body of the berry begins to redden, and does not become red until the perfect maturity of the fruit. By far the greater proportion of the fruit of this variety is plucked when reddening and yet immature, which has caused it to be less esteemed; but if it is allowed to remain until fully matured, for which the reddening of the extremity forms a conclusive guide, its sweetness and flavor is so much increased, that it may then be classed in excellence with our best varieties. It however requires a powerful sun to mature it fully, and the want of this heat has caused it to be condemned by the London Horticultural Society; but careful investigation made the present season, has convinced me, as well as other amateurs of the strawberry to whom I submitted the fruit, that it ought to be reinstated in favor. I will further remark, that the berries of this variety detach *very readily* from the hull.

I notice a reference by Mr. L. to the genuine staminate Keen's seedling, and to a pistillate variety which he prefers for its abundant crops when fertilized. This latter is none other than the Methven scarlet *misnamed*, and which has been long sold at Philadelphia for the Keen's seedling, as Mr. Downing avers. In regard to Hovey's seedling, which being strongly pistillate, and as Mr. L. states, utterly unproductive in all ordinary cases without fertilization, I will mention an extraordinary circumstance. A very large detached bed bore this season a fair crop of fruit, resulting probably from a forced development of the stamens consequent upon the drought and extreme heat that existed at the period of flowering, or possibly, but not probably, from pollen being conveyed to them by bees. In another garden a bed of Hovey's seedling growing by itself, which was barren last year, has this year been loaded with fruit, in consequence of the owner planting a bed of staminate plants near to it the last autumn.

I will now make a few remarks, as to other varieties. The following appear to have perfect bisexual flowers, and are of course uniformly productive. English white and red wood, all the monthly Alpines, both running and bush, prolific hautbois, large flat hautbois, large early scarlet, and Duke of Kent's Scarlet; and another scarlet of twice the size of the last, without a name, which I call prolific scarlet; and also the green strawberry. The wild strawberry of this island, *Fragaria Virginica*, is found differing in sexual developments, and consequently in fruitfulness, which accords with Mr. Longworth's investigations as to the native varieties of the west.

On the subject of the fertilization of abortive varieties, one most important point demands our attention, which appears to be very generally unknown. It is that there are distinct families of strawberries *which never amalgamate*. The European wood and Alpine varieties form one family; the hautbois varieties another; the scarlet, black, and pine form a third; and the green, I am inclined to think, forms a fourth, to which this restriction will apply. It is therefore indispensable that the selection of staminate or pistillate varieties be made within these limits. You will thus perceive the fallacy of the suggestion made by our friend Mr. Hovey, of Boston (Mag. of Hort., No. CXIX, page 402), that "The Alpine strawberry offers the chance of great improvement, and perhaps by impregnation with the large sorts great size might be obtained, and its successive bearing retained."

The culture of the strawberry being somewhat of a hobby with me, I have concentrated from all quarters every possible variety, and I have now above sixty estimable varieties, after rejecting all that did not possess valuable properties. In addition thereto, I have above thirty beds of seedlings, each grown from a choice and distinct variety, one of which is from the Montevideo Pine, the largest and most splendid of all strawberries. I have the present season selected from many thousands, eight very large and superior seedlings, distinct in origin and in their properties, which I am now propagating rapidly, and will in due time announce to the public. Those who have a taste for the strawberry culture may derive much amusement from an inspection of my collection, and they are perfectly welcome to avail themselves of the opportunity.

MONTEVIDEO PINE.—This most extraordinary variety took the premium at the June semi-annual Exhibition of the Flushing Horticultural Society. The entire plant is so strongly marked as to be readily distinguishable from all others. The leaves are large, heavy and rugose, the petioles strong and downy; the flowers as large and often larger than a dollar; the fruit pale red, obtusely conical, very regular and perfect in form, with occasionally one of cockscomb shape, and remarkably beautiful; and those that mature during the first two weeks are almost invariably three to four inches in circumference. The fruit begins ripening about the 15th June, and continues in regular bearing until the middle of July. Mr. Browne (author of the American Sylva), who saw it in print, stated it to be the identical strawberry he had seen in the gardens of Montevideo. It was introduced to our country by Messrs. Prince, of Flushing, to whom the premium was awarded for its exhibition. The crimson cone, and the *genuine* Prince Albert (two varieties being so called) are next to the above in point of beauty and size.

WM. R. PRINCE.
Prince's Linnæan Garden and Nurseries,
Flushing, Aug. 16, 1845.

GEDDES'S HARROW.

WE noticed Mr. Geddes' remarks in relation to our improvements of his harrow, page 218 of the July number of the Agriculturist. From considerable experience we can assure him, that we think his harrow not only "improved for a prairie," but also for the *stony hills* of New England, or, indeed, any other kind of soil. Our reasons for this opinion are the following: 1st. Teeth simply placed in the timbers of the harrow without fastening are continually getting loose, and the more ragged and stony the ground the greater the liability to do so. 2d. When loose they present an unequal surface, and not only do the work imperfectly and unevenly, but make the harrow harder to draw, and therefore more tiresome for the team, especially when the forward teeth slip up, as they are most likely to do, and the hind ones keep fast. 3d. The nut in our improvement does not "draw the teeth up" as supposed by Mr. Geddes, but holds it fast in its proper place. Of course when it is worn off by use it must be repointed or sharpened; and so must those on the old plan, as proposed by Mr. G.; and there is this further disadvantage of adhering to the old plan, every time a tooth is knocked out to be pointed or sharpened, the doing so increases the size of the mortice in the timber, and makes the teeth more and more liable to get loose, and wedging them is both troublesome and difficult. 4th. The teeth are liable to drop out when the harrow is turned over double to be carried in or out, or from field to field, and besides their top projections sometimes prevent its being doubled In this position, too, the teeth are liable to drop out, subjecting one to considerable loss of time frequently in looking for them.

We are much obliged to Mr. Geddes for his good opinion of our agricultural implements, and shall continue to strive to deserve them in all such as we make; and if we can spare the time to attend the forthcoming show of the New York State Agricultural Society, at Utica, we shall do so with great pleasure, and not only bring our improved harrow, but other of our implements with us.

Ruggles, Nourse & Mason.

Worcester, Mass. Aug, 6, 1845.

We will simply add one word to the above. In the year 1838 we first saw Wilbur's harrow, similar to that of Mr. Geddes, and thereupon took the hint to make a pair for our farm, very much like the present improvement of Ruggles, Nourse & Mason, especially in mortising in and fastening the teeth. Those harrows are still in use, and are the best decidedly we ever handled.

WIRE FENCES.

Permit me to refer you as a pertinent answer to the inquiry of your correspondent in your last number, upon the subject of wire-fencing, to certain questions and answers, contained in the Third Report of the Select Committee of the British Parliament, appointed to inquire into the state of agriculture, 1836. As you may not have the document at hand, I will transcribe the passage.

The person under examination is L. Oliphant, Esq., a member of Parliament from Scotland, who cultivates a farm of his own in Perthshire, containing 800 acres.

"11,124. I am cultivating land now 800 and odd feet above the level of the sea, which two years ago was entirely covered with heath. I have enclosed it with wire-fencing, at an expense of about 6d a yard, stones in that part of the country being of a nature that do not stand the weather; well-adapted for furrow-drains, but not at all for building walls, and I have fallen upon a plan of wire-fencing, with oak posts, with five wires complete, which costs me 6d per yard.

"11,125. Do you prefer that to planting hedges? I have attempted hedges; it is a hard matter to contend against a high climate and sheep.

"11,126. Are those wire fences capable of resisting cattle? They will resist anything. The fox-hunters will complain loudly of the impossibility of getting over the country.

"11,127. What is the size of the top wire? It is No. 8, and the remainder are No. 6."

From these data, the cost of such a fence in this country may easily be computed. We of course would use locust or cedar posts, which would be preferable to even British oak, in point of durability; and the difference between their cost here, and that of the oak posts there, would go far to make up for any excess in the cost of the wire here over its cost there. There are many parts of the Atlantic states, at least, where even the first cost of such a wire fence would be less than that of one of boards, or of posts and rails.

Tyro.

WESTERN CALENDAR FOR SEPTEMBER.

Early in this month the residue of the hemp crop should be put in rick. The cutting and housing of tobacco should progress as fast as it ripens. The weeds, in woodland pastures, so far as it has not been already done, should be cut as early in this month as practicable. By all means do not wait for the "dark of the moon," but cut all biennials and per enials as fast as you can. In a few years you will have your woodland, if properly thinned out, covered with luxuriant blue grass, instead of briars and noxious weeds.

This is the month for sowing wheat, and the utmost diligence should be used to prepare the ground well, and in proper season. Early sowing almost invariably turns out best. Do not fail to finish sowing in September, and if possible before the 20th, or 25th of the month. There is usually leisure for a part of the hands on a farm during this month, and they should be diligently employed in cutting weeds, *briars*, &c. The latter, when cured, should be heaped and burnt, and thus afford an opportunity to sheep to nip the young briars when they first spring up. One cutting and burning, well prepared, with the aid of a good flock of sheep, will exterminate them. But if you expect your sheep to work for you, you must treat them well. You must neither expose them to have their fleeces filled with burrs, nor torn by briars. The first you must exterminate, the latter you must cut and burn. Do this, and they will not only crop down the young briars as fast as they spring up, without fee or reward, but will also furnish you annually with their rich and abundant fleeces. When they thus labor for you, and furnish you with heavy fleeces, to keep you warm, you will not, in return, grudge them their salt. These cheap laborers would be invaluable to the settlers on the prairies of Indiana and Illinois. There grass so much abounds as to be an obstruction to the cultivation of the soil. These industrious little animals would convert a portion of it into fine fleece wool, to warm and clothe the new settlers, and feed themselves and their little ones to boot.

In the more northern latitudes, sweet potatoes should be dug the last of this month; further south this operation may be delayed till October. As sweet potatoes are injured by frosts sufficiently severe to nip the vines, they should be dug and housed in time to avoid this danger.

Prospect Hill, Ky. A. Beatty.

Agriculture in Scotland.—No. 11.

I propose to occupy this and perhaps another letter, by a sketch of a journey between this place and Durham, which I made about the middle of June. There are four or five distinct routes taken by the coaches from Edinburgh to Newcastle; the one which I took was by way of Lauder, Kelso, Coldstream, Wooler, and Morpeth, passing through the counties of Edinburgh, Berwick, Roxburgh, Northumberland, and Durham.

From Edinburgh to the Fala water, nearly twenty miles, the cultivation is generally very good, and about Dalkeith the pasture fields looked remarkably well. But even thus near to the Lothians, there are here and there farms, which are almost unimproved, whose fields show the baneful effects of indolence or prejudice. The noble parks about Dalkeith Palace and Newbattle Abbey contribute greatly to the beauty of this section. From Blackshiels the road rises rapidly to the top of Soutra Hill, one of the highest of the Lammermoors. It is, I believe, about 1,200 feet above the level of the sea. At the top is a wide, bleak, boggy tract, tenanted almost entirely by sheep, nearly all black-faced. A solitary shepherd's hut and ale-house rises alone in the middle, and tall wooden posts by the road-side show that marks are necessary during the winter storms. In this high bleak region we can scarcely hope to grow grain crops in regular rotation, even by the most approved methods now known; but I think that by draining, liming, and judicious plantations to form shelters on the more exposed points, the pasture might be increased in value many fold.

From this place to Lauder, and indeed I may say almost to Kelso, the farming generally is not good. The soil is formed from the slates of the great clay slate formation, which stretches across Scotland, from St. Abb's Head to the Mull of Galloway. The different strata of slate differ in composition greatly; but they all form improveable soils. Many, or indeed I may say all, of these soils are rather stiff, naturally cold, and retentive of water. Draining is progressing among the farmers there, but not so fast as it ought; the fields are too often thrown up in ridges, with a fine crop ornamenting in a narrow stripe the top, and contrasting with a yellow dwarfish growth in the hollow. One field struck me particularly. Half of it only, the coachman told me, had been drained. The crop was turnips, sown on ridges across the field, which had a gentle slope. It had been raining violently during the night, and the water stood in pools between the ridges as far as the undrained land went; beyond that it was dry. I never saw so perfectly exemplified, the effect of thorough draining.

Farm of Mr. Dudgeon.—On drawing near to Kelso the aspect of things changes for the better. There are many very excellent farmers in that neighborhood. We stopped half a day to visit Mr. Dudgeon, of Skylaw. This gentleman is extensively known as a most enterprising farmer. During a former lease many improvements were made, advances, in fact, fully equal to any of the time in that region. Now having a new lease and more light, he is proceeding with great vigor and confidence. The soil is chiefly strong and stiff, some of the clay making excellent tiles. The great evil on such soils is an excess of water; according to the earlier systems of draining it was attempted to remove this by cross drains to *cut off the springs*, but these have been found not to accomplish the object. The whole plan of draining, therefore, is changed, and every field is, or soon will be, drained straight down the slope, the drains being 12 yards apart, and never less than 36 inches in depth. The effect of the drain, followed after a proper time by the subsoil plow, is such, that he is now growing crops of turnips on stiff tile clays. In some of the English counties over which I have lately travelled, Norfolk, for instance, even where the soil is deep, they merely skim the surface, 4 to 5 inches being the usual depth, and they call 10 inches subsoiling. Mr. Dudgeon does not allow his men to go less than nine inches at the first plowing, and follows that by subsoiling from six to nine inches farther.

The farm contains about 900 acres, and is laid out in large fields, of from 20 to 40 acres. We found nearly all of the crops looking well, the turnips especially so. Of these there are this year 180 acres. In one turnip field, I counted 29 hoes in full operation. Most of this company were women, they being generally quicker and more expert than the men. Very few potatoes are grown, merely enough for the family, and a certain portion to each laborer. The wheat looked very healthy, but is rather thin in some fields, owing either to frosts in spring or the wireworm.

We found on one corner of the farm a tile work in full operation. It turns out from 4 to 500,000 tiles in a year, but is not by any means able to supply the demand of the immediate neighborhood.

At the same time that Mr. Dudgeon is improving most rapidly the long cultivated fields, he is bringing in others from a state of nature. We saw one of about 30 acres, in which the drains are nearly complete. The upper part was a wild moor, overgrown with patches of furze, and the lower part a perfect morass. The soil looked stiff and unpromising; but when once dry and well broken up, it will repay the trouble and expense of subduing it.

Mr. Dudgeon has had three young Germans with him this summer, studying practical agriculture; one of them is to remain two years. To show the estimation in which Scotch farming is held, I may mention that at the present time no less than thirty young men attend Kelso market weekly, who are students with the farmers of the neighborhood. They are for the most part from England, some from Ireland, and a number from the continent. There should be some from the United States. A year of such tuition would be quite invaluable to any of our young farmers, and my own experience of Scottish hospitality and kindness would warrant me in promising to any who might incline to try it, a pleasant as well as profitable year. John P Norton.

Edinburgh, July 11, 1845.

Large Watermelons.—Mr. Ferriday, of Natchez, Miss., writes under date of 30th July, that he had two watermelons sent him from Tensau Parish, Louisiana, one of which weighed 39 lbs., and the other 42 lbs. We should be glad to be the recipient of such favors during the succeeding reign of dog days. We have seen nothing like their weight in our market this season.

TRANSACTIONS OF THE NEW YORK STATE AGRICULTURAL SOCIETY.

I NOTICED in the July Agriculturist, some remarks on the last volume of Transactions of the State Agricultural Society, the sentiments of which correspond with my own; and as I feel an interest in the progress of the Society, and the welfare of our farming interest generally, I beg leave, through your columns, to add a few observations on this subject.

I have looked through the large volume of the last Transactions, and with considerable disappointment saw no publication of several reports of committees at the last Poughkeepsie Cattle Show, which I heard read at the time. I allude now particularly to the reports on horses and cattle.

It was admitted by those generally who heard the reading of those reports at the time, that they were drawn up with great ability by their several committees, who were, if I mistake not, composed of accomplished judges in their several departments, some of whom had come hundreds of miles, and one from a foreign country, to officiate on the occasion. These reports, as I understood at the time, were expected, both by the committees who made them, by the exhibitors of stock which were the subject of their remarks, and by the public who heard them read, to be published at length in the annual volume issued by the Society; and it appears to me, that if the Transactions of the Society are to be published at all, they should contain what they purport to, *i. e.*, the *bonâ fide* Transactions of the Society. But I confess to you, as they now stand, they look pretty much like the playing of Hamlet, with the part of Hamlet left out. To be sure, there is a list of premiums published, but without the accompanying remarks of the committees on the animals, the reasons why, &c., &c., they appear vague and unmeaning. If the public are to gain any benefit from the exhibitions of the Society, and its publications, it is in *their practical* effects. Now, if its reports, and the remarks of its committees, made up with a good deal of labor, and a considerable sacrifice of their own time and expense in attending the shows, and the laborious work of examining all the various animals, productions, and implements confided to their charge for the best part of two days, as is usually the case, are to be thrown by as so much waste paper, as has been done in these above mentioned, who, of any ability in matters of this kind, will hereafter officiate as judging committees for the Society? And if the exhibitors of animals of merit are to be turned off thus slightingly, with a mere announcement of what has received the premiums, without "rhyme or reason," or for why or for what, other animals, in their estimation, no better than their own, have received premiums in preference, how long will the large list of the disappointed competitors continue to send their animals for exhibition? There is also something due to the successful exhibitors, if the viewing committees think proper to make remarks upon their animals, that such remarks be published. In fact, I know no good reason for these omissions on the part of the managers of the State Society, unless it be from the inattention of those having charge of the papers which are to make up the volume.

In relation to this, it appears that the labor of making up the last volume was consigned to a Committee of Publication, or something of the sort. This consisted of Dr. Beekman, a State senator, Dr. Lee, a member of assembly, both of whom had busy and responsible duties to perform in their several capacities as legislators, and Mr. Tucker, editor of the Cultivator. Now none of these gentlemen had the necessary time to attend to it, and Mr. John J. Thomas, an assistant editor of the Cultivator (or at least a writer of some of its editorials), and a nurseryman of Wayne county, was sent for to supervise, select, and arrange the matter handed in for publication. The labor therefore was thrown from the proper committee on to this one individual. With the manner in which this duty *generally* has been performed, I have no disposition to find fault; but I do object that legitimate and important matter, appertaining strictly to the society and its members, was thrown out, and much irrelevant material put in its place, such as essays on the agriculture of distant states and countries, which can have little practical effect on our own farmers; and speeches, and general theoretic remarks, little useful to them, substituted. I observe, too, that the papers of Mr. Thomas himself, making 50 pages—nearly one-tenth of the Transactions—have abundant room in this, as in the past volumes; well indeed in themselves, but not more exclusively useful than the actual reports of committees of the Society itself. I say this without disparagement or disrespect to either of the gentlemen above named; but really it would seem that if the Society has the funds which you say it has, and which is corroborated by the report of the treasurer, a competent committee should be found who will devote the necessary time, and be paid their expenses at least, while in the performance of their duty, without delegating it to others.

Another thing seems to me should be done in point of fairness to our agricultural papers—the chief offices of the Society, Corresponding and Recording Secretaries, should not be conferred upon the editors of papers. I do not question their competency or disposition to do all that they can for the welfare of the Society, but is it not giving undue advantage to the papers thus under their control in appropriating the patronage of the Society to their own particular use? I do not say that this is the case, but many people think so. The State Society officers should be placed above even the suspicion of such a thing as accepting an office for the sake of assisting a collateral interest. Why not appoint a secretary with good pay for his services, and not let all the operations of the Society be wielded by a single press or two for their own emolument? Another thing, why are the Transactions made an ADVERTISING sheet for the benefit of certain stock-breeders who choose to badger the Society for the admission of their covert advertisements in the shape of laudation of their cattle, sheep, or pigs? There is not only a *meanness* in the parties who solicit it, but a *gross perversion* of the uses of the Transactions themselves in their admission. It should never be permitted again. If the Transactions are to be respected as the legitimate records of the Society, let all extraneous matter be excluded until whatever is useful as appertaining to the Society itself be arranged for publication; and then, if there be room, such *competent* papers should be admitted as will confer a benefit on the public. It is to be hoped that the future volumes of the Transactions may be able to boast a responsible paternity, and no longer wander about the community a *filius nullius*.

New York, July, 1845. A Member.

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We give place to the foregoing remarks from a respected correspondent, without comment, other than we wish to have the usefulness and reputation of the State Agricultural Society continued and perpetuated. But we are persuaded that such continuance will depend wholly on the fairness and intelligence with which its proceedings are conducted. We have strictly abstained from any direct connection with this Society, or indeed with any other, for we disdain any personal advantages whatever to be derived from them. Our press has ever been an independent one, and it is our intention to keep it so. If any one chooses to reply to the above, our columns are open. Hereafter, we shall have some remarks of our own to offer.

THE GARGET IN COWS.

A popular opinion respecting this disease, is, that it is occasioned by the presence of a full flow of milk in the udder, and I wish to state some facts which may assist in deciding correctly, the validity of this opinion.

I have for several years been in the habit of handling the udders of young heifers before calving, with decided benefit. In pursuance of this practice, winter before last, having a young heifer to calve in the March following, I commenced this course as usual, and had rendered her quite gentle, when all at once, on handling her udder, she gave me notice that I hurt it. I suspected the cause, and found on further examination a hard bunch in the interior of the udder, which was evidently the cause of her skittishness. The udder at this time indicated but little milk in it. Having read of sulphur as being useful to give cows while dry with calf, I gave her a few doses and the complaint subsided, and no appearance of garget at the time of her calving, or in the summer that followed. She had a calf this spring about the 20th of April, and no appearance of the disease until about a week since, when she gave milk badly bloody from one teat, the same teat where the bunch was felt above it last year; and on examination a similar bunch was found above this teat. I commenced giving her sulphur, and the complaint appears to be subsiding.

Another fact respecting this disease, took place some two or three years since in an old cow. She had been slightly affected with the garget several times; but remember it was slight. In drying her off the last calf she had (having killed her since), and when she was almost dry she had the disease much worse than ever. I dosed her with sulphur, while she was dry, and no garget appeared when she calved, or since while she lived.

Another idea I would mention is this, that in all cases of garget that I have seen, it has only partially affected the udder. It has been concentrated in some parts of the udder, either wholly or much worse than others Now I should think, if the pressure of the milk was the prime cause of the disease, it would be uniform in every part of the udder.

Again, I have milked my cows for several years, wholly myself, and having had one fine cow spoiled by the disease, several years since, I have watched with intense anxiety all symptoms of this disease, and I have almost uniformly been able to detect some symptoms of the disease before the appearance of bloody or clotted milk. These symptoms are invariably hard bunches either in the interior, or outside of the udder or both. Sometimes the notice I had was unusual heat in some part of the udder or teats, and at others no heat was felt at all on the outside. It seems then from all the experience I have had, it is a disease somewhat resembling the scrofula in the human system. It may indeed be aggravated by an unusual flow of milk. That is reasonable. But the question at issue is, whether this is generally the most efficient course.

I find, page 188 of the Agriculturist for June, in the proceedings of the American Agricultural Association, this brief statement in reference to disease in cattle: "Many cattle are *scrofulous*." I cannot see that any reference is here made to the disease called garget in cows. I hope, however, that communication may yet appear in the Agriculturist, and that this communication may excite some of your intelligent correspondents to examine this subject, with a scrutiny that shall settle this question beyond dispute. It is of no use to tell about mere opinions, where demonstration is possible.

Peru, June 11, 1845. J. H. Jenne.

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The above was handed to me, inasmuch as it quotes a remark made by me at the May meeting of the American Agricultural Association which was reported in this paper, June No. My experience has never traced any connection between garget and scrofula. It may exist. Garget may be easily removed if promptly treated. I am inclined to trace more and more diseases to scrofula, as my experience enlarges, deeming them only varying forms of scrofula. No book on cattle I ever read (and I have read every one old and new in English and French I ever heard of) mentions scrofula. The opinions I have formed have sprung from continued observation of the analogy between certain forms of disease in cattle and the exhibitions of scrofula in man. The character is the same in each. Garget may be scrofulous; but if so all the remedies used for it do not cure it, but only change its location or its form; and in that case it would recur. Scrofula cannot be *cured* by sulphur; if garget *can be*, it is not scrofulous. Scrofula is perhaps never cured, but only suppressed, and remains latent. Many diseases are called garget which are not; the results, swelling, loss of milk, bad milk, &c., are the same—hence the mistake. Some are scrofulous—others not; garget proper is not scrofulous.

I intend, when I have fully matured my opinions as to *all* the forms of scrofula in cattle, to publish an essay on the subject. At present I am positive that all chronic diseases of the liver, the lungs, and of the throat, all tumors on the neck and body, all wens, nodes, enlargement of the bones, caries of the bones, swelling of the joints (not simply *on* the joints), and ulcers of a serious character and spontaneous in appearance, all hypertrophies, and all permanent indurations of the bag, are scrofulous. All sterilities of the cow (and most of the bull) which cannot be accounted for, spring from scrofula. I could satisfactorily demonstrate this to any well read physician who is familiar with scrofula.

A. Stevens.

WM. HENRY SOTHAM AND THE HEREFORDS.

Under this head I propose to say what I feel is due both to the man and the cattle which he has imported and bred. I start with the proposition, that Mr. Sotham is, in the highest sense of the word, a public benefactor; and that his herd, as a herd in the aggregate, is the *best* in America; and in addition he has individuals which have no superiors in any other country. Not only this, but he has *more highly* superior animals than any other breeder whom I know. Measured by the standard which should be applied to any good cattle, they stand high in the scale of excellence. With this positive good character, let it be added that his herd are a new kind in our country; that in them the country has an accession to the material for its agricultural action, and it may be confidently asserted, that Mr. Sotham is indeed a benefactor. The celebrated breeder, Mr. Bates of Kirkleavington, England, has said, that for *one* man with the capacity to breed *good* cattle, there may be found *forty* who would make first rate prime ministers. Had he said *one hundred* instead of *forty*, he would have been nearer the truth; for there are *thousands*, in our country, who would fill respectably, nay, ably, the great offices of state, and it may be asked, are there hundreds who have the capacity to breed good animals? Decimate the hundreds and yet you are above the mark. But of the *few* Mr. Sotham is *one*, and as his herd shows him, a distinguished one. You may prefer some other race of cattle to his; but take the Hereford standard of excellence, and he is a conspicuous and *able* breeder. What herd in this country, of any race or kind, can show so much uniformity? Of his pure Herefords (at least one hundred) not an *indifferent* and not more than three or four *moderate* animals has he. They were selected from various sources, yet his critical eye chose excellence always; and when his herd was gathered, his critical judgment exercised itself ever to breed excellence.

Such has been Mr. Sotham's aim, and he has achieved it. In his cattle he has reared to himself a monument more durable than marble—the cattle will reproduce themselves, the marble would crumble to dust.

I propose to devote three or four numbers to Mr. Sotham's farm, his improvements, and method of cultivation; and to his cattle and sheep. In this one I shall speak of Mr. S. personally. It is due to him. He has won a position against prejudice and opposing interest; and this interest has not been passive; but indeed most active. His laurels are his own, won by himself; alone he fought for them, and now the battle over, he begins to enjoy the merited honor of his high sagacity successfully applied. In his cattle he gave to the country of his adoption a new element in agriculture. By their diffusion he will confer such good as will make him a widely known and remembered benefactor of the country. His enterprise was a new one, it has been successful, and from it hereafter the country will reap riches untold, and he reputation richly merited.

I am Mr. Sotham's friend. I advocate his cattle, and yet from no other interest than admiration of the man as a judge and breeder of cattle, and admiration of his stock. By them I was won to know and admire his skill and judgment. I am a Short-Horn man, and have not the least interest in the Herefords, and of course I speak only the conclusions of my judgment. Before I knew Mr. Sotham, I formed my opinion of his cattle, and I sought his acquaintance from the desire to know the man who had the eye to see, and the judgment and energy to realize so great a good as their introduction. Called upon as a committee man, at the late show of the State Agricultural Society, to pass judgment on the Short-Horns and Herefords exhibited, I could not but remark, that the only man who showed animals all of uniform excellence and character was Mr. S. In those classes he exhibited more in number than any other person, and not one animal but was superior. Of what other exhibitor can this be said? Favorably impressed by what I saw at the show, I went to his farm to view his herd, and there saw that the draft shown by him was no more than a type of the whole.

And who is Wm. Henry Sotham? He is an Englishman, born in Oxfordshire, and was reared a farmer. Some years since, he came to this country, and located himself at Perch Lake, in Jefferson county, New York. About eight years since, he commenced the introduction of Herefords from the best herds in England. On his first importation, he removed to Albany, where being joined by the Hon. Erastus Corning in his enterprise, he placed himself on the beautiful farm now known as Hereford Hall. Under his skill its impoverished fields have become fertile; and now his noble herd of cattle, numbering at least one hundred, four fifths bred by himself, spread themselves over its hills and fill its dales.

In my next I will notice his cattle and sheep—a noble flock—and the succeeding one his farm management.

A. Stevens.

DISEASES OF SWINE.

I wish to ask you a few questions relative to a sow and pigs of mine. On the 19th of March last, she had a litter of ten pigs, and on the 21st all were dead. The 19th was a snowy raw day. She littered in the stable yard, and had apparently just given birth to the last pig when I discovered her. I immediately placed the sow and pigs in a stable, fed her on boiled potatoes, and some corn meal therewith. All appeared well on the 20th, and on the 21st, I found all dead but four. I judged from their appearance that they died in fits. The tongue lacerated and clasped by the teeth, and frothy at the mouth. Of the four remaining on that morning at six o'clock, two soon after died, acting like a drunken man, staggering and frothing. At noon the same day they died, and the two survivors were attacked in like manner. These we took into the house and nursed them, and experimented on them with salt and brandy, which seemed to benefit them but not restore them. They all died by night, 21st March. I have been thus particular, and wish to know what was the matter with them. The mother is living and doing well, and as our cattle and hogs range here through the woods, she may again be with pig. I saw nothing in Clater and Youatt bearing any resemblance to the foregoing, and none of my neighbors could account for it, save a maidenly lady, who said, that I should not have removed them from the spot where they were born, until they had nursed from the sow. I handled them very gently, and *with mittens*, and drove the sow to them immediately that I put them down. If you can give me any information respecting the sickness, &c., of the pigs, I shall feel much obliged.

ALEXANDER LEEDS.

St. Joseph, Berrien Co., Mich., July 15, 1845.

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The pigs simply got chilled, could not suck their dam, and of course died. The lady's advice above was good, and they should not have been moved till they had been nursed, for they would then have got strength and warmth. Feeding salt and brandy was very bad; they should have been kept warm and fed with warm milk, as they were perishing from hunger and cold. A young pig is one of the most delicate of animals, and should always be farrowed in mild weather, and in a comfortable place. It is dangerous to remove them from the sow when first dropped; all one can do is simply to watch and prevent her overlaying them, and put them to the teats if they stray away; all the rest must be left to their own instincts.

ICE-HOUSES.

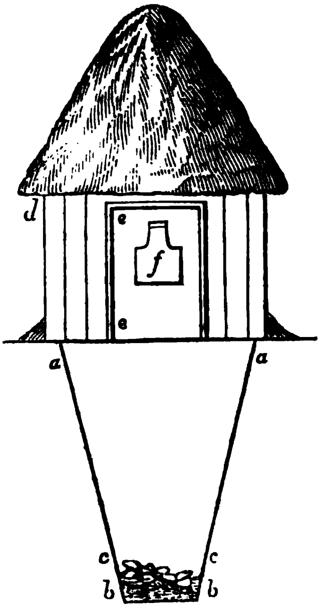
THE long summers which generally pervade the United States, and their enervating oppressive heat, render the use of ice a necessary, alike conducive to the health and comfort of the people. It is to be regretted that so few of the farmers think of this, and not one in a hundred perhaps has his ice-house. Ice during the summer is generally considered among them as scarcely attainable, and a luxury only to be enjoyed by the rich. But if they knew how cheaply and easily an ice-house could be constructed, and then how to fill it properly, scarce a farmer in the country who would not have it in abundance, in addition to his cold spring or well.

The best situation usually contended for in an ice-house, is the north side of a hill, with the earth on all sides save the front, and the whole under shade-trees. Now as for the shade-trees there never was a greater mistake, for they attract moisture, and moisture melts ice ten times as fast as a hot wind or the sun. We also object to the sides and back of the ice-house being of earth, as that is moist too; and instead of preserving the ice as our readers may generally think, it has a tendency to make it melt the more rapidly. An ice-house then may be placed in any airy, open situation, and preserve the ice a long time, provided it has a good drainage and be properly filled. These two are the essential requisites. As a proof of this, see the buildings on the Rockland lake for its preservation. These are of wood, standing entirely above ground, and in fact are built just like a common plain barn. During winter the ice is sawed out of the lake of any thickness, in blocks of about two feet long, and two feet wide. These are then taken to the ice-house, and laid up compactly in it just like a heap of brick. This forms a solid mass, impenetrable to the sun and air, and it will thus keep an indefinite length of time. Perhaps our readers generally are not aware how long it takes to melt solid blocks of ice. We have often seen them on the banks of rivers in the Northern States in June, and are informed that some of the huge blocks which were thrown up last winter on to the banks of the Niagara, near Lewiston, although constantly exposed to the sun, air, and rain, were still of considerable size at midsummer, the present season.

The best and safest way to construct an ice-house in this climate is, to make a wooden frame with posts about a foot thick, then plank up inside and out, and fill between the planking with saw-dust or tan-bark. An under roof should also be made, and the space between the two filled the same as the sides, or with straw. If the soil be not of a porous nature, we would lay a plank floor for the ice to rest on, at least a foot high from the ground, and this should be covered a foot thick with straw, before putting on the ice. The entrance doors should be double, with a foot space between them. In filling the ice-house, if it be inconvenient to saw the ice into exact blocks, to match and lay up smooth within like mason work, then beat the lumps down with a heavy mallet as they are thrown in, and make the mass as compact as possible.

Mr. T. S. Pleasants, of Virginia, gives a very cheap model for an ice-house in our second volume, page 370; but as many of our present readers may not have seen it, we republish it for their benefit.

"The best ice-house I have ever seen, is one made in as cheap and rude a manner as the plainest farmer could desire. On the side of a hill a pit was dug; a simple pen of logs supported the walls; it was covered with rived pine slabs, and so open as to admit a free circulation of air. During the heat of the day, the sun shines full upon the roof. And withal, the pit is only 12 feet square, by 14 feet deep. It has been in use now for six or seven years, and has never been clear of ice since it was first filled. Two years ago, when the winter was so mild, it was only half filled, with thin ice; and yet there was some remaining at the end of the next season. In the construction of this house, there is nothing to distinguish it, except the perfect draining."



ICE-HOUSE.—FIG. 65.

For the sketch of Fig. 65 and its description, we are indebted to the London Gardener's Chronicle.

a b a, Conical hole in the ground.

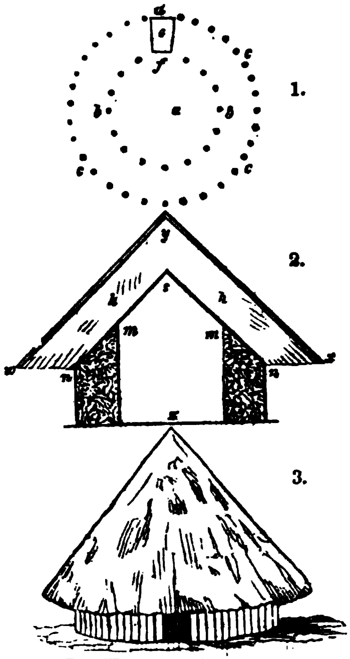
c b, Stones or rubble, to act as a drain 18 inches deep.

a d, Slabs 4 feet high above the surface.

e, Door.

f, A trap door, to answer a similar one on the opposite side, to be opened in a dry air, and carefully closed when the circumambient atmosphere is damp.

Cobbett, in his Cottage Economy, gives the following plan and description for an ice-house, which may be conveniently adopted in this country with slight modifications.



ICE-HOUSE.—FIG. 66.

The best form is the circular; and the house, when made, appears as I have endeavored to describe it in 3 of Fig. 66. 1, *a*, is the centre of a circle, the diameter of which is ten feet, and at this centre you put up a post to stand fifteen feet above the level of the ground, which post ought to be about nine inches through at the bottom, and not a great deal smaller at the top. Great care must be taken that this post be perfectly perpendicular; for, if it be not, the whole building will be awry.

b b b, Are fifteen posts, nine feet high, and six inches through at the bottom, without much tapering towards the top. These posts stand about two feet apart, reckoning from centre of post to centre of post, which leaves between each two a space of 18 inches.

c c c c, Are fifty-four posts, five feet high, and five inches through at the bottom, without much tapering towards the top.

These posts stand about two feet apart, from centre of post to centre of post, which leaves between each two a space of nineteen inches. The space between these two rows of posts is four feet in width, and, as will be presently seen, is to contain a wall of straw.

e, Is a passage through this wall; *d*, is the outside door of the passage; *f*, is the inside door; and the inner circle of which *a* is the centre, is the place in which the ice is to be deposited.

Well, then, we have now got the posts up; and, before we talk of the roof of the house, or of the bed for the ice, it will be best to speak about the making of the wall. It is to be made of straw, wheat-straw, or rye-straw, with no rubbish in it, and made very smooth by the hand as it is put in. You lay it in very closely and very smoothly, so that if the wall were cut across as at *g g*, in 2 (which 2 represents the whole building cut down through the middle, omitting the centre post), the ends of the straw would present a compact face as they do after a cut of a chaff-cutter. But there requires something to keep the straw from bulging out between the posts. Little stakes as big as your wrist will answer this purpose. Drive them into the ground, and fasten, at top, to the plates, of which I am now to speak. The plates are pieces of wood which go all round both the circles, and are nailed on upon the tops of the posts. Their main business is to receive and sustain the lower ends of the rafters, as at *m m* and *n n*, in 2. But to the plates also the stakes just mentioned must be fastened at top. Thus, then, there will be this space of four feet wide, having on each side of it a row of posts and stakes, not more than about six inches from each other, to hold up, and to keep in its place, this wall of straw.

Next come to the rafters, as from *s* to *n*, in 2. Carpenters best know what is the number and what the size of the rafters; but from *s* to *m* there need be only about half as many as from *m* to *n*. However, carpenters know all about this. It is their every-day work. The roof is forty-five degrees pitch, as the carpenters call it. If it were even sharper, it would be none the worse. There will be about thirty ends of rafters to lodge on the plate, as at *m*; and these cannot all be fastened to the top of the centre post rising up from *a*; but carpenters know how to manage this matter, so as to make all strong and safe. The plate which goes along on the tops of the row of posts, *b b b*, must, of course, be put on in a somewhat sloping form; otherwise there would be a sort of hip formed by the rafters. However, the thatch is to be so deep, that this may not be of much consequence. Before the thatching begins, there are laths to put up on the rafters. Thatchers know all about this, and all that you have to do is, to take care that the thatcher tie the straw on well. The best way, in a case of such deep thatch, is to have a strong man to tie for the thatcher. The roof is now raftered, and it is to receive a thatch of clean, sound, and well-prepared wheat or rye-straw, four feet thick, as at *h h* in 2.

The house having now got walls and roof, the next thing is to make the bed to receive the ice. This bed is the area of the circle of which *a* is the centre. You begin by laying on the ground round logs, eight inches through, or thereabouts, and placing them across the area, leaving spaces between them of about a foot. Then, crossways on them, poles about four inches through, placed at six inches apart. Then, crossways on them, other poles about two inches through, placed at three inches apart. Then, crossways on them, rods as thick as your finger, placed at an inch apart. Then, upon these, small clean, dry, last winter-cut twigs, to the thickness of about two inches; or, instead of these twigs, good, clean, strong heath, free from grass and moss, and from rubbish of all sorts.' This is the bed for the ice to lie on; and, as you see, the top of the bed will be seventeen inches from the ground. The pressure of the ice may, perhaps, bring it to fourteen, or to thirteen. Upon this bed the ice is put, broken and pummelled, and beaten down together in the usual manner.

Having got the bed filled with ice, we have next to shut it safely up. As we have seen, there is a passage (*e*). Two feet wide is enough for this passage, and, being as long as the wall is thick, it is, of course, four feet long. The use of the passage is this; that you may have two doors, so that you may, in hot or damp weather, shut the outer door, while you have the inner door open. This inner door may be of hurdle-work and straw, and covered, on one of the sides, with sheep-skins with the wool on, so as to keep out the external air. The outer door, which must lock, must be of wood, made to shut very closely, and, besides, covered with skins like the other. At times of great danger from heat, or from wet, the whole of the passage may be filled with straw. The door *p* at 3, should face the north, or between north and east.

As to the size of the ice-house, that must, of course, depend upon the quantity of ice that you may choose to have. A house on the above scale is, from *w* to *x* in 2, twenty-nine feet; from *y* to *z* in 2, nineteen feet. The area of the circle, of which *a* is the centre, is ten feet in diameter, and as this area contains seventy-five superficial feet, if you put ice on the bed to the height of only five feet (and you may put it on to the height of seven feet from the top of the bed) you will have three hundred and seventy-five cubic feet of ice, and, observe, a cubic foot of ice will, when broken up, fill much more than a Winchester bushel: even Dives himself would hardly call for more than two bushels of ice in a day; for more than two bushels a day it would be unless it were used in cold as well as in hot weather.

As to the expense of such a house, it could, in the country, not be much. None of the posts, except the main or centre-post, need be very straight. The other posts might be easily culled from tree-lops, destined for firewood. The straw would make all straight. The plates must of necessity be short pieces of wood; and, as to the stakes, the laths, and the logs, poles, rods, twigs, and heath, they would not all cost twenty shillings. The straw is the principal article; and in most places even that would not cost more than two or three pounds. If it last many years, the price could not be an object; and if but a little while, it would still be nearly as good for litter as it was before it was applied to this purpose. How often the bottom of the straw walls might want renewing I cannot say, but I know that the roof would, with few and small repairs, last well for ten years. I have said that the interior row of posts is to be nine feet high, and the exterior row five feet high. I, in each case, mean, with the plate inclusive. I have only to add, that by way of superabundant precaution against bottom wet, it will be well to make a sort of gutter, to receive the drip from the roof, and to carry it away as soon as it falls.

Now, after expressing a hope that I shall have made myself clearly understood by every reader, it is necessary that I remind him, that I do not pretend to pledge myself for the complete success, nor for any success at all, of this mode of making ice-houses. But, at the same time, I express my firm belief, that complete success would attend it; because it not only corresponds with what I have seen of such matters, but I had the details from a gentleman who had ample experience to guide him, and who was a man on whose word and judgment I placed a perfect reliance. He advised me to erect an ice-house; but not caring enough about fresh meat and fish in summer, or, at least, not setting them enough above "prime pork" to induce me to take any trouble to secure the former, I never built an ice-house. Thus, then, I only communicate that in which I believe; there is, however, in all cases, this comfort, that if the thing fail as an ice-house, it will serve all generations to come as a model for a pig-bed.

European Agriculture—No. 4.

My last letter was written, I believe, at Milan, amid the hurry of a rapid progress through Venetian Lombardy. We had decided to cross the Alps at Mount Cenis, and with that object took our seats in a slow diligence for Turin.

Between Milan and Novara the country is low, and planted with Indian corn, or laid down to wheat and grass, which were kept in a state of most thrifty growth by the constant irrigation for which this part of Italy possesses unusual facilities. In the more wet spots basket willows were growing in large quantities, and were said to be no inconsiderable source of revenue to the proprietors. This tree will flourish equally well in this country, grows most luxuriantly, and if planted by the side of brooks and ponds, or in swamps, would form, without expense or cultivation, a permanent source of profit to the American proprietor. There are many articles of European production which the greater value attached to labor in this country will not allow us to cultivate with advantage. This, however, is not one of them, and it is somewhat surprising that the landholder will let slip so desirable a means of securing a permanent revenue from unoccupied lands, when the tree will grow so easily from cuttings, which can be planted by a child of 12 years.

Near Turin the country is more hilly, and the soil not so good, but planted with vines, rice, willows, and some noble fig trees of large size. Few things can be more beautiful than these Italian vineyards. Mulberry trees at regular intervals of 20 to 30 feet covered a large tract; the vines are planted at the foot of these, and running up soon cover the trees, from which they are then gracefully festooned to the next, until the whole field exhibits successive rows of inverted arches of living green. One may then easily imagine its beautiful appearance in the vintage season, when the graceful festoons are weighed down with heavy clusters of rich and luscious fruit, and the peasantry scattered among the fields finishing the labors of the day by dancing around the loaded wagon, while the rich and mellow glow of an Italian sun-set lights up the bright, manly face of the peasant, and the expressive eye and often beautiful features of the Italian peasant girl.

Throughout Venetian Lombardy, one cannot avoid admiring the fine oxen that are frequently met on the road. They are large, clean-limbed animals, of a rich cream color, with fine arching horns, and good action. We frequently met flocks of Merino sheep, and occasionally some good cows.

Turin is a very regular city, with streets at right angles, and is occupied by a bright-looking populasion of a German cast of countenance. There is at Turin a good botanic garden, belonging to the University. Quite an extent of fine turf is planted with trees, shrubs, and plants, while a rapid stream courses through the grounds. The walls are covered with grapes, and in the orangery and greenhouses is a very good collection of exotics. There are several villas, and also a royal garden, none of which, however, possess any particular attraction.

From Turin to Susa at the foot of Mount Cenis, the country possesses no distinctive features; but its comparative tameness was more than balanced by the beauty and grandeur that surrounded our passage across the Alps. For although it did not entirely realize my expectations, the terms grand and beautiful are certainly no exaggeration. Mountains, abrupt declivities, and precipices surrounded us on all sides, while the light of the moon on their snow-capped summits, rendered the shadows below still deeper and more dark At one time we would pass through the body of an immense avalanche, and at another seem hovering upon the brink of a precipice, which overhung a ravine some hundreds of feet below us. Amid all this natural grandeur the solitude was unbroken, save by the creaking of our sleigh or the cry of the driver to his horses. Yet I have said I was disappointed—grandeur there was in abundance, but there was wanting the beauty of forest foliage. I had wandered among the hills of the beautiful islands in the Caribbean sea, and crossed the Andes at points nearly 8,000 feet above the level of the ocean, where the noblest forest trees covered the loftiest summits, while on the steep declivities, the delicate flowers and foliage of the coffee, the cocoa, and the lime, formed a delightful contrast with the more noble beauty of the mahogany and bucara trees. It was thus that the beauty of foliage had become inseparably connected with my conceptions of mountain scenery, and the Alps seemed deficient in one important feature of natural beauty. Yet without this, there was much to impress the mind and to render our passage across the Alps an occurrence of no ordinary interest. After descending the mountain we again took wheels, and passing through Chambery arrived at Geneva in very good condition to enjoy its comforts.

Geneva is one of the most agreeable cities on the continent, and the most desirable for a permanent residence. It is situated on a lake of remarkable beauty, and its scenery is familiar to every one as described by the poetic pen of one whose genius and talents were equalled only by his depravity.

The people have an appearance of much quiet intelligence, and independence of thought and bearing, which, to an American eye, forms an agreeable contrast with the servility and superstition of the inhabitants of some of the neighboring countries. In the vicinity of the town are a number of villas sloping down to the lake, and some very prettily laid out and planted with trees and shrubs to the very foot of the lawn, which is washed by the waters of the lake. Geneva possesses a very good botanic garden, founded by the celebrated botanist De Candolle, and still bearing pasted upon its walls the rules and regulations framed by himself. The garden is laid out rectangularly, with a fountain in the middle, and a good collection of ornamental trees and plants. There is also a fine specimen ground of dwarf pears and other fruits, well pruned and covered with fruit spurs. The pears are ten years old, and only about six feet distant from each other. In the greenhouse is a good collection of plants, among which I noticed a fine Astrapea, and a large specimen of the *Araucaria imbricata.* The garden forms a promenade for the citizens, and in the afternoon can be seen there all the elite and fashion of the city, with young school girls and children with their nurses. It is somewhat celebrated for its schools, many of which are of an excellent character, and are frequented by American and English children, who can there obtain a correct French pronunciation, without being exposed to the contaminating influences of a city like Paris. Geneva is the favorite residence of many English families, and the society is consequently of a very agreeable character. In the vicinity of the city are a number of florists and nurserymen, whose business is however limited. In a room near the botanic Garden is a collection of agricultural implements which were well formed, and mostly the invention of Fellenberg, whose excellent agricultural school is at Hoffwyl, about nine miles from Berne, and is probably the best establishment of the kind existing.

Taking diligence from Geneva to Lausanne, and thence to Berne, we passed through some of the finest parts of Switzerland, over mountains, through ravines, and among waterfalls and rivulets. Much of the scenery is very fine; but in beauty it will not equal much that is on the Hudson river, or in the interior of Pennsylvania. White spruce, pines, and Alpine flowers were abundant.

Berne possesses nothing of much interest, and we soon proceeded on to Basle. This is a flourishing town on the Rhine, and is the commencement of the line of railroads connecting Switzerland with the Atlantic. The railroad passes near the Rhine through Strasburg, celebrated for its patés de foies gras, or pies of goose's liver. To obtain the materials for these a most barbarous treatment of the bird is practised. They are shut up in a very confined and warm place, and food is forced down their throat until the livers become of enormous size. The pie is considered a great delicacy, but to me it was decidedly disagreeable. Strasburg is also celebrated for a fine statue of Kleber, a good cathedral, and a very beautiful monument to Marshal Saxe, which, although made of coarse stone, was superior in character and expression to any group of statuary we saw in Italy. Marshal Saxe died in Paris, and being a Protestant requested to be buried in Strasburg, the only Protestant town in the French dominions. From Strasburg to Manheim is a ride by railroad of about six hours. This is a pleasant place, with regular streets and some fine houses. The suburbs contain vineyards, country seats, and small tea gardens, to which the inhabitants of all classes resort. The gardens of the palace are laid out with some taste, in winding walks and shrubbery, but are kept in bad order. The country about Manheim is very low and uninteresting, and at this period was flooded for many miles back from the Rhine. Leaving Manheim by steamboat we ran rapidly down the Rhine to Mayence, where we stopped for the night. The next morning we found that the river had overflowed its banks to a great extent, and entirely cut off our return to the boat. Making a detour, however, around the upper part of the town, we succeeded by means of boards and planks in reaching the boat, and were glad to find ourselves on the way to Cologne. The great quantity of snow that had fallen was now melting from the mountains, and the small streams poured their swollen torrents into the Rhine, whose waters were constantly increasing and driving hundreds of families from their homes. All around us were seen houses with the water above their second story windows.

On arriving at Cologne we found a great part of the town flooded, and after some difficulty were comfortably ensconced in the second story of a hotel, just out of the water, not, however, without the apprehension of being turned out before morning. Here circumstances compelled us to remain a few days, and partake of the dullness of the city of perfumes; for dreary indeed is Germany, both city and country, amid the watery desolation and chilling temperature of a winter like the present. It was here that I often found myself looking back with something like regret to the pleasant fire-sides and agreeable society of our own America. European travelling is often productive of much instruction to one who wishes to obtain information, and he cannot well return from such a trip without feeling that he has reaped many advantages, if no actual increase in his store of knowledge, yet as far as regards pleasure and enjoyment, there is much more in anticipation and retrospect than in reality; and one soon becomes convinced that there is no place where rational pleasure and true social enjoyment can so well be found, as in that where men, trees, and localities excite vivid recollections of former days, of early associations and of things that once were. S. B. PARSONS.

Cologne, March, 1845.

LAWRENCE'S TONGUELESS-BUCKLE.

HERE is an improvement. It is designed for the traces or tugs of harness. It is useful and economical; and will save money, time, and vexation. With the ordinary buckle, the trace is weakened by the hole made to admit the tongue. When a trace, uniformly sound, breaks, it is always at the buckle, its weakest part. To obviate this, all those engaged in heavy draught have of late years ceased the use of buckles for traces, and adopted chains at the end of the trace with rings on the whiffle-trees. Farmers and stage proprietors especially have resorted to this mode of attachment. But the objection to the chains is, that with sudden jerks, especially in frosty weather, they are liable to break. This rarely ever happens with a sound trace, except at the buckle holes. Hence the great necessity of some plan to obviate this evil; and in Mr. Lawrence's buckle it is perfectly done. The buckle is a *lever*. It is applied in this manner. There is a loop; three sides (one of which is long and grooved) of the loop are fixed, the fourth is the lower end (but not the extremity), and is movable. The lever is double, and is like and looks like an ordinary buckle; that is, it is a lever of two arms, with a cross piece at the ends of the arms. The fulcrum of the lever is at the extremity; and the fulcrum is pivoted into the loop, so that a part of the lever just above the fulcrum makes the fourth side of the loop. It will thus be seen that the lever, having a pivoted fulcrum, may by motion widen or narrow the loop. The lever is curved. The trace passes through the loop and the hole in the lever. The curve of the lever gives an oblique direction to the trace just at the buckle. Draught straightens the trace. As the lever gives an oblique direction to the trace, the draught in straightening the trace presses the lever up in such a manner that the loop is narrowed. The trace being in the loop is pressed firmly. The draught cannot entirely straighten the trace, the buckle-lever being too much curved to allow it. So long as the trace is in the loop, there is some capacity in the lever to move in the direction of its power. The only chance for the escape of the trace is, that it shall break at the loop. But there is less liability of this there than in any other part; for the pressure which holds the trace in the loop, condenses the trace at the point of pressure. The surface of the loop is *smooth*; for although one side is grooved, the grooving is smooth and not sharp or angular (indeed the grooving is not necessary); therefore, the trace cannot be cut. But no ordinary pressure can crush leather, perhaps no pressure whatever, and certainly no pressure that can arise from the draught of a horse. The pressure which condenses the trace gives greater strength to the trace, and this pressure is applied at the point where the trace is held. Then the trace is strengthened at the place of weakness, in traces adjusted with the ordinary buckle, and this is an important point.

The merits of this buckle are, 1st, that it obviates the necessity of cutting holes in the trace to admit a tongue; this leaves the trace as strong at the point of application of the buckle as at any other point. 2d, It strengthens the trace at the point of fastening by condensing; this compensates (and more) for the slight wear at the point of fastening. 3d, The greater the draught the more firmly the trace is pressed; this gives greater strength with the greater draught, just the reverse of the tongue-buckle. Of course the trace *cannot* break at the point where the buckle holds it. These are positive merits, and in these respects it is superior to tongue-buckles. Is it in anything inferior? No!

It is attached in the same manner as ordinary buckles. Besides the parts described, there is a loop for attaching it to the hame-tug; but here it has a positive advantage. Not only may it be attached to the hame-tug as ordinary buckles, but it may have the hame-tug pass through the loop, and be fastened in the same manner as the trace; thus in case the ordinary manner of attaching gives way, the loop may be used to fasten. The method of taking up or letting out the trace is just as simple, and is always as easy and generally more easy, than in the common buckle. It is sometimes very difficult to either shorten or lengthen the trace when attached to tongue-buckles; with the tongueless buckle never.

The peculiar merit of this buckle may be illustrated by the arch. The greater the weight the more firmly its parts are held, and the stronger the arch; the abutments supporting the arch are weakened by the weight on the arch. With this buckle it is the same; the trace is the more firmly held, and the stronger the greater the draught, and the greater the draught the weaker the buckle. But the buckle is stronger than any trace, and stronger than the power of any horse. It is stronger than any common buckle, for the draught is on the hame-tug and the trace. The power of the buckle being that of the lever, with a pivot for a fulcrum, its weak point is the pivot. But the pivot is stronger than any horse, and cannot of course be broken. The scientific will comprehend this illustration of the power of the tongueless-buckle.

The unscientific mind will see its power by this illustration. Suppose the trace were screwed into a common vice, and the tug so adjusted that when pulled it would turn the screw which tightens the grasp of the vice upon the trace, and a perfect idea of the action of the tongueless-buckle will be had. The jaws of the vice represent the loop of this buckle; the thread of the screw the pivot of the buckle; and the handle which turns the screw, the lever of the buckle: and the action of the trace when pulled on the handle, in turning the screw and tightening the vice-jaws, the action of the trace when the horse draws, in moving the lever of the buckle, and the narrowing of the loop. In both, the greater the draught upon the trace, the stronger the grasp on it.

New York, August, 1846. A. STEVENS.

We heartily approve of Mr. Lawrence's capital improvement in the buckle. It will save thousands of dollars annually in every state, now expended to repair tugs, broken on account of the use of tongue-buckles. For all uses they are nearly as low in price as the common buckle. They have wisely been put at a low price to secure a large sale. One may be seen at our office, and we should be glad to supply orders from our friends. It is one of the greatest improvements of the age.

ENGLISH HORSES.

I am happy to announce the safe arrival of our friend * * * * * * *, and family—just *one day too late* for the Ascot-day!—for so an Englishman would mark the epoch, and consider it an irreparable loss. Not to see the "Darby race" is bad enough, but to miss Ascot is always considered the loss of that year, at least in a man's sporting life—and every English gentleman sports more or less. On these momentous occasions the houses of grave legislation adjourn—public offices do nothing—even law leaves its chambers—and doctors are not to be found at home! The citizen, the man of business, from the wealthiest banking and shipping houses, to the very cats'-meat-man, (*a*) the loafer, the laborer, the very beggar gives up his trade and will bet from a "breeder" to a "bull" (*b*) on his favorite. Yes, all London turns out on the "cup-day" at Ascot, and so did we; and such a day of suffering to be called pleasure I never toiled through. Such a hot sun—such a breathless atmosphere—such a dense *mass* of dust! It is folly to say *clouds* of dust, for clouds shift and move, and break away. No, when you doubt which way the carriage before you is moving, whether *to* you or *from* you—when you look over the wheel in vain to see if it be on or off the road—when in fact the voice grows husky and the eye dim, and men ride the road with their heads tied up in gauze, we may well talk of dust *en masse*. But all this passed as *pleasure!* Yes, it was an *excursion of pleasure*, or at least we started in pursuit of *pleasure*, and such were its constituents—to say nothing of the risks of life, the crash of carriages, the jam, the press, the crowd, the crush of vehicles and horses, the rush for places, and the demands made at every step on your purse for something or for nothing. At length we arrive at the course, our half sovereign is paid, and we are permitted to pass and seek a place along a line of carriages already standing three deep. Hardly have you "pulled up," hesitating and hopeless as to *where* to get a peep, your horses disappear, your pole is taken out, and your carriage lifted bodily as close up as possible to whatever may be next you, by a set of fellows who are ever at hand on such occasions, and whose officiousness decides your fate and all chance of further selection. You have yourself hardly left the carriage and landed on the ground, emerging from a cloud of dust disturbed by the movements, before one chap, brush in hand, has possessed himself of your hat, another is busily at work on your coat, while a third is on his knees brushing away at your boots, and another with a bucket of water and tin basin, urges upon you hydropathy in all its simplest form. "A cool wash, zur?—clear water, all fresh—dry directly, zur, in this-ere 'ot sun;" for not a rag of anything was there for a "vipe," save your own pocket-handkerchief.

Then commenced the race with the usual "there they go"—"here they come"—"blue has it"—"well done yellow"—"go it red." A pause of anxious suspense ensues. What a long interminable minute it is! Impatience calls it *ten;* but the watch declares it to be only one. The board is up. No. 4 is marked as the winner.(*c*) No. 4? Oh that's the Emperor! Yes, the Emperor won by half a head, &c. &c. Gloves are won and lost: so are shillings: and so indeed are thousands! Aye, the lady who has come on the course in her carriage and four, has left it in a borrowed conveyance!

It was a most trying day for both man and beast. No less than one hundred horses were left by the road side. Forty pounds was offered for an omnibus, and ten guineas for a donkey-cart; and what was our astonishment when the gypsey-looking owner declared "he couldn't do it no how for that money. A *bull*, mayhap, fotched you here, but it'll take a lot of *goldfinches* (*d*) to carry you back agin."

We had been more provident; for by engaging stalls at half a guinea each for a night's standing, and sending on relays, we got home comfortably, after a refreshing drive of seventeen miles, in the cool of the evening; and a most delightful drive it was as soon as we turned off from the main road of travel, and were disentangled from the mighty current that was setting towards London. The unparalleled excellence of the roads, winding and turning at every mile, without a stone, without the impress of a wheel, with a surface even and smooth as the nicest garden-walk, and edged by the turf on either side, cut and trimmed by a line; the hedges filled with flowers; the air loaded with fragrance; the foliage of the richest and most diversified green, and the fields of the most vivid color—all conspired to increase the enjoyment of our quiet ride home from such a scene of turmoil and excitement as we had been in. So much for *a day at Ascot*. But you have passed through it all, and I might have spared your time and my own, and devoted my paper to something better worth your perusal.

Now for a word or two about the horses: and when I tell you that Alice Hawthorn and Foig-a-Ballagh were beaten on that day, you will believe that England's best were there. And yet I can hardly make up my mind as to what effect the present system of racing in England will have on those breeds of horses, which more or less partake of the racing blood. The horses bred for the turf go into training at two years old, and are consequently used up before they arrive at the age of maturity: they run short distances, and never heats. Thus the speed and not the endurance of the animal is tested. His strength, size, and temper must, however, under these circumstances, be properties of much attention and care, to enable these babies of the stable to stride through their half mile with feather weights on their backs. They show a symmetry of strength that surprised me, in the expanse of shoulder, size of the fore-arm, fulness of loin, and length of the hind quarters. Indeed, I am inclined to believe that the skeleton and mechanical powers of the horse are bred stronger on the modern system of racing than when such immature exertions were not demanded of him, and he was only called upon for work commensurate with his age and consequent developements. The question then is, whether, under this course of things, his *constitution* be impaired so as to affect his progeny, or are only his *mechanical parts* injured, affecting the ability solely of *individual performance*. I must confess that not long since I should not have entertained a question of the sort, but should have decided that the present system was ruinous. Now I am not sure that America could beat England at four-mile-heats, if her young animals which I have seen staggering through a race for two year olds, were allowed the same chance to attain maturity, and were called upon for no earlier work than the American racer. However, for want of more exact data, I leave it as an open question for the present.

While on the subject of horses, I must observe, that I perceive a great falling off in the style and beauty of the carriage horse; at the same time the hunter and the hack are as much an object of care and attention as ever. The four-in-hand club no longer exist, and indeed such a turn-out is rarely seen. A carriage and pair under the whip of a coachman (and that pair often from a job-stable) is all that is thought necessary for the convenience of the ladies while in town. Under this change you may well suppose the horses driven by the coachman are not selected with the same care, or turned out in the same style as when the coachman was thrust inside, and the owner and his friends were on the box.

In a former letter I remarked on the superior knee action of the English roadster, both in and out of the harness; and further observation has entirely confirmed my opinion in this particular, and it is in a degree accounted for by the fact that the colts are here wintered in yards, running up to their bellies in loose straw, where they cannot move even on a walk, except by a very high action of the knee. I am the more confirmed in this being the cause, from the fact that the horses imported into England from Hanover, expressly for the undertaker's business, where the extravagance of that action is required by *the fashion of the day*, are kept and brought up in yards deeply covered with straw, until they are taken into use, and are so kept with intent to produce that especial action; and many of them are left entire, in order that they may carry a more perfectly black coat. Undoubtedly something is attributable to the pains bestowed in breaking and biting the animal, and in setting him well back on his haunches; all of which is very little attended to with us. While, however, the English horse has the more showy and *safer* action, our roadsters have the greater speed; and if we have not an equal sleekness and polish of coat, we have a better and more enduring constitution; for there was nothing on the Ascot-day that would have in the least distressed an American horse, and the papers stated there were over a hundred horses died from excessive heat and work!

Ponies are very much in use here from their not paying the same tax as a horse, and under twelve hands they pay no tax at all. They are driven by all classes, and the work they do is astonishing. Many of them are very beautiful and well broken. R.

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(*a*) The cat's-meat-man is a person going about the streets of London, with a little dog-cart, crying, "cat's meat," in a singular high drawling tone. The meat is cut up in thin slices, and is frequently from the carcase of a dead horse. It is bought by the house-keepers for their cats, which, at the cry of the meat-man, rush mewing to the doors in great numbers, forming a ludicrous sight to the stranger in London.

(*b*) "Breeder" and "bull." The former is a cant phrase for a shilling, the latter for a crown piece.

(*c*) On the race-course in England, cards are distributed with the numbers 1, 2, 3, 4, &c., attached to each name of the horse which is to run. The moment the race is over a signal board is hoisted with the number of the winner on it, so that every person on the course sees it at once, and thus knows by looking at his card which horse has won. For example, suppose the figure 3 was placed in the card opposite the name of the Emperor; the moment he comes in victor, up goes the signal board with the number 3 on it, when the immense crowd present sees instantly that he was first. Racing in England is reduced to as exact a system almost as the movements of a clock, and when there, our enthusiastic love of horse-flesh induced us to study it with great zeal, not with a view of ever practising or countenancing the thing at home—for it is well known that in principle we are opposed to it—but to obtain all possible knowledge in our power on the subject of horses.

(*d*) "Goldfinch," a cant phrase for a guinea.

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AMERICAN AGRICULTURIST ALMANAC.—A correspondent, writing us from St. Joseph, Michigan, says, "Please send me your Almanac for 1846. That of 1845 saved me four acres of corn from squirrel depredations; the one of 1844 taught me how to make excellent maple sugar; now I will see what I can learn from that of 1846. I regret you did not continue the publication in the style of 1844."

When we published our Almanac for 1844, it was our intention to have continued it from year to year in the same style; but an imitating cotemporary, who would have never thought of issuing an almanac had we not done so, immediately on its announcement, *magnanimously* got up another at *half price;* we were consequently obliged, the succeeding years, in order to compete with it, to issue a cheap affair. However, there is this consolation, in the matter, our Almanac now has a much more extensive sale than if at a higher price, and is therefore probably in the way of doing more good.

Ladies' Department.

FARMERS' WIVES.

We do not know whether it is a proved fact, that the atmosphere surrounding a farm necessarily changes the female sex into iron machines, capable of any amount of strength and labor, or whether when a farmer takes to himself a wife, he considers that he is only securing another domestic beast of burden, to rank in point of utility with his horse and ox; but we do know that in too many instances he lives and acts as if prompted by just such principles.

I do not intend by these expressions, any disparagement whatever to farming, as an occupation, for I consider it the noblest employment a man can engage in, the most healthful, the most conducive to morality and expansion of intellect, as well as the one, when properly conducted, best calculated to secure the greatest amount of happiness to his wife and children, and *I speak from experience*. But it must be confessed, it is sad as well as amusing, to look over the various agricultural periodicals and mark how multifarious the labors which a farmer's wife is bound in duty to perform; labors, the third, nay, the greater part of which, if imposed upon the wives of any other class of men, would be stigmatized as outrageous and absurd. In the first place, with a family twice as large as her next door neighbor's, whose husband is not a farmer, she is allowed but half the number of domestics—happy, indeed, if she secures more than that anomaly in the shape of *help*—a maid of all work. Then, it is argued, that nothing can prosper unless performed under her immediate supervision, and everything in the house, cooking, baking, washing, ironing, sweeping, scouring, dusting, with all the thousand other *ings* necessary, require her presence to ensure their proper performance. Next, and we will suppose in mercy that her children are not numerous, all the clothing for herself and family she must make and keep in repair; and it is *hinted* that it would be a very fine thing if farmers' wives would spin and manufacture their cloth, before they fashion it for use. They must, of course, make the sausages, try out the lard, cure the hams, and dry the herbs; while her husband is advised that if he gives the poultry-yard into her care, he will be much more likely to secure a good stock of chickens against Christmas, as well as more eggs for market. It is also asserted as a moral impossibility, that butter and cheese cannot be good, unless she scalds the pans, sets the milk, and skims and churns all with her own hands. And last—for I shall tire with these enumerations, though not half through the list, she is urged to cultivate her mind; and it is enforced as the highest duty, that she considers the education of her children entrusted to her charge.

Now I would ask where is the most willingly disposed woman to find *time* for all these things, laying aside the health and strength necessarily requisite for such unceasing toil. That she should endeavor to be a good housekeeper is allowed; that she should endeavor, as far as possible, to be an assistant to her husband, is right; but if it is admitted that the instruction of her children (and the capability for that, presupposes the culture of her own intellect), is a paramount duty, why should she be obliged to utterly neglect such an important matter, and waste so much of the precious time that might be given to them, in doing and overseeing things which others can as well do and oversee for themselves. I have heard it remarked of such and such farmers, that they did not get along well, and the suggestion thrown in that they had not the right kind of wives, they did not "see to things" enough, when the truth was, the poor wives "saw" to things altogether too much, so that for them, the old adage of "too many cooks spoil the broth," might be more aptly rendered by too many employments spoil the cook.

This unjust taxation upon a woman's time and strength, arises no doubt, in a measure, from the fact that the greatest annual outgo upon a farm is for hired labor, and the farmer, seeing this is the most obvious drainage from his purse, strives in every way to prevent it. And he generally commences in the house, thinking what is done there, being only "woman's work," cannot amount to much, never observing, that his method is giving his wife a round of never-ending duties, which is the lot of no other upon the place, while the amount thus saved is more than spent again, in repairing the perpetual accidents that will constantly occur, where there is only one to do the work of half-a-dozen, as well as in medicine and doctor's bills; for although many men think that when their wives are continually moving about, they are only taking exercise, yet exercise carried to excess is as injurious as perpetual inaction; and though a degree of fatigue is allowed to be beneficial, yet, to have the faculties constantly on the stretch and wearied, is as much a violation of the laws of physiology, as to neglect the use of them altogether. But chapters might be written upon this, and I will pass on to some illustrations drawn from life, not fictitious—I wish some of them were.

Mr. A. is the possessor of a farm containing some three hundred acres, which was left him by his father, together with a small sum of money, sufficient to make him what is called "better off" than the generality of working farmers. He married a young, intelligent, healthy, country girl, the daughter of a farmer, and one who had been accustomed to a part in the household labor, from childhood. She had also been accustomed to seeking daily exercise and amusement in the open air, and to passing a portion of her leisure in reading and study, of which she was very fond. She married with high anticipations of enjoyment; but time soon proved them delusive. She found it was the height of folly for a *farmer's wife* to think of rambling in the woods for flowers, and that it was perfectly useless to inhale the fresh air, unless she ran out in a great hurry to see what was the matter with the chickens, or to look up eggs for some purpose of cookery. There was no time for books, as every thought must be given up to that one of work! work! work! from morning till night. Still she had one dream left, and that was, when her little ones were old enough, she could begin to teach them, and thus renew her own knowledge; but when they had grown old enough, where was the time when she could be spared even to teach the youngest of the group its A, B, C.'s? As this hope departed, much anxiety was added to her many burdens, and the health which had long been giving way, failed faster and faster. Still she must work while she could, till at last nature could hold out no longer, and the first words that met the ear of the now really alarmed husband, were those death-knelling ones, consumption—and incurable! Consumption how induced? Not by any hereditary taint, but as his conscience too surely told him, by a violation of all nature's laws, the disregard of which he himself had compelled, and these compunctions received only additional strength from his wife's dying request, "that in seeking one to fill her place, he should procure a mother for his children, not a servant for his work."

Mr. B.'s wife was thought to be, when he married her, a woman of a high order of intellect, as well as an excellent housekeeper, and she might have remained till this time, the pride of her husband and friends, as she was then, had her intellect been allowed any nourishment. We do not know *why* it is, but it has often been remarked, and is certainly very true, that let a woman, possessing ever so superior intellectual endowments, suffer them to be neglected and run into disuse, she becomes in time more apparently devoid of mental culture, than those who never laid any claim to it. So it has been with Mrs. B. She could not give up her favorite pursuits without a struggle, but when once fairly set aside, she sank rapidly into that characterless being, a domestic drudge, "cookery her Christianity, and hers a kitchen creed." And now you may find her with no higher ambition than to invent a new dish for the table, out of some odds and ends there is no economy in saving, with but one literary companion, and that a book of recipes! Her friends cannot visit her, unless they are willing to pass their whole time among pots and kettles in the kitchen; her children roam at large, attending school or not, as they please; while her husband sighs over the sleep of an intellect which was once his boast, and well he may, for his own hand laid the spell.

The next example is a common one. It is that of an apparently amiable temper soured by continual thwarting of desires, physical fatigues, and vexing mental cares. Mr. C. could hardly recognize the gentle maiden he wooed for his wife, in the scolding termagant who now rules his house. He forgets, however, that the gentler nature was crushed by the weight of burdens heavier than it could bear, and that the spirit which has arisen from its ruins, is but a power determined to assert its own rights.

But let us turn to the fairer side of the picture. Mr. D. possesses land amounting to just the same number of acres as that of Farmer A. first mentioned, though he does not possess the same amount of means; what he has laid by, having been entirely from the results of his own labors. He is a man, as Mr. A. would think, exceedingly ultra in his notions upon subjects, especially so upon the very one of which we have been treating. His wife is an intelligent, highly-cultivated woman, fully capable of appreciating her good fortune, in being connected with one upon whose head the organ of benevolence is as largely developed, as upon her husband's. The number of his out-door laborers is large, yet he allows her a cook, a chambermaid, and oh, tell it not in Gath, a third domestic to assist in taking care of the children. Mrs. D. has time to walk for exercise, to visit her friends and have them visit her, to read not only all her husband's farming books, but to keep up with the useful knowledge of the day. She is teaching her oldest boy Latin, and his sister botany, while the instruction of the younger ones devolves almost entirely upon her. She is never idle, and her husband's fear oftener is that she will do too much, rather than that she will not do enough. What is the result of this? Some will answer, or they ought to, if their theories are in conformity with their practice, that such a farmer is on the high road to ruin; that everything will be going to waste while his wife is gadding; he will be behindhand every year from the expense of so much "help," and that before long he will find out his mistake. Unfortunately for our theorists, evidences are to the contrary of all this. His house is as neat in every part, as neat as can be, though his wife does sometimes allow the chambermaid to sweep and dust and scour on her own responsibility; his meals are well cooked, the strictest economy observed, and nothing wasted, although his wife is not for ever in the kitchen. She has sometimes been so rash as to allow the cook to try out the lard, yet it has never been spoiled; but worse than all, their butter has more than once received a premium, and yet Mrs. D. does not churn it, or skim the milk, or even scald the pans! As to this last matter, however, I would observe, that she thinks in common with most good housekeepers, that the business of the dairy is much more secure of good care when under the sole management of the mistress herself, than when given into the charge of others; but she thinks also, as does her husband, that there may be things of more importance sometimes interfering with such an arrangement, which should be first attended to. His farm is becoming more productive, and he is laying by more money every year—yet with such ultra motives!

E. M. C.

To Preserve Biscuit from Putrefaction.—To preserve biscuit a long time sweet and good, no other art is necessary than stowing it well-baked in casks exactly caulked, and carefully lined with tin, so as to exclude the air; at the same time the biscuit must be so placed as to leave as little vacant room as possible in the cask; and when the same is opened through necessity, it must be speedily closed again with great care.—*Family Receipt Book.*

To Make Artificial or Potatoe Bread.—Put a pound of potatoes in a net, into a skillet with cold water, and, lest the skin break and let in the water, hang it at a distance, so as not to boil over the fire, till they become soft; then skin, mash, and rub them so as to be well mixed, with a pound of flour, a very large spoonful of salt, and two large spoonfuls of yeast; but less of the yeast is better. Then add a little warm water, and knead it up as other dough; lay it a little while before the fire to ferment or rise, then bake it in a very hot oven. Bread made in this manner has been frequently tried, and found to be well-tasted, wholesome, and of good consistence.—*Ib.*

To discover if Bread is Adulterated with Alum.—Make a solution of lime in aquafortis, and put a little of this solution into water, in which you have steeped the bread suspected to contain alum. If such should be the case, the acid, which was combined with the alum, will form a precipitate or chalky concretion at the bottom of the vessel.—*Ib.*

FOREIGN AGRICULTURAL NEWS.

By the steamship Hibernia, we have our regular file of European journals to August 5th.

MARKETS.—*Ashes* a limited sale and prices lower. *Cotton* depressed, with a downward tendency. The stock on hand at Liverpool on the 1st of August, was 1,058,000 bales; against 998,000 same period last year. *Flour* and *Grain*, in consequence of the bad harvest prospects, on the advance. *Beef* has fallen a trifle. *Pork* is more firmly held. *Lard* on the rise, and fine much wanted. *Cheese* little in market, and good qualities would probably sell well. *Rice* in good demand. *Tallow* brisk, and a still further advance.

Money a little more in demand, and discounts had risen ¼ per cent.

American Stocks slightly depressed.

The Weather was rainy and cold, and considered so unfavorable for the harvest, that quite a speculative feeling was up in the corn market.

English Agricultural Society.—The annual show of this noble Society took place at Shrewsbury, commencing the 15th July, and continuing four days. Owing to the rather isolated situation of this town, the number of people, cattle, and implements present, were not as great as on former occasions; but the stock was of a superior kind, showing a marked improvement in this respect. Dinners, speeches, and good feeling, and schemes for the improvement of the agricultural class, seemed to be the order of the day.

An Immense Strawberry.—We find in the Gardener's Chronicle of August 2d, the outline of the exact size of a British Queen Strawberry, grown the past season by Mr. Stobbs, of Lincoln. It measures in the outline, 3¼ in. long, and 1¾ in. deep The circumference, of course, we cannot give. We presume it was flat-shaped. It weighed a little more than an ounce and a half.

Influence of Galvanic Electricity on the Germination of Seeds.—Mr. Edward Solly read a paper before the late meeting of the British Association for the advancement of science, in which he states, that his experiments on this subject did not in any way prove that germination was stimulated by electricity; but, judging from the known powers of electricity, it would be reasonable to expect, that, like light and heat, it would exert marked influence on the growth of vegetables, in fact, act as a stimulus. Mr. Solly then described the recent experiments which have been made on this subject, and gave an account of an extensive series, at present being made in the gardens of the Horticultural Society. Seeds of barley, wheat, rye, turnip, and radish, were, in several different experiments, found to germinate with increased rapidity, when exposed to the influence of a feeble current of electricity of very low tension, and the plants not only came up sooner, but were more healthy than others. These experiments certainly appeared decisive in favor of the stimulating effect of electricity on germination, as distinguished from the mere chemical effect produced by electricity; but, on the other hand, a number of experiments on other seeds had given quite opposite results, proving either that the germination of some seeds was retarded, whilst that of others was facilitated by electricity: or, that the effects, observed in both cases, were merely incidental. Out of a series of 55 experiments on different seeds, 20 appeared in favor of electricity, 10 against it, and 25 showed no effect whatever; and, on carefully counting the whole number of seeds up in the entire series, there were found 1250 of the electrified, and 1253 of the non-electrified seeds up In conclusion, Mr. Solly stated that he felt very doubtful whether the effects observed were really due to the influence of electricity.

Theory of the Utility of Rotation.—Were I writing on this subject as a mere theorist, I might say that any course of rotation might be followed, and any crops taken which the farmer chose, and in any order of succession, provided the substances which the crops carry off from the land are faithfully restored to it. This is a favorite doctrine at present among some agricultural theorists. But the study of practical farming has taught me that this kind of closet cultivation would not produce good returns on all our soils. The mechanics of agriculture are almost as essential to the management of the soil as the chemistry of agriculture; and it is because the former is not understood in our laboratories, that the confident announcements of the mere chemist have hitherto been so frequently at variance with the practical experience of the money-making farmer. The natural habits of the plant we seek to grow have also much to do with the mode of culture. A minute knowledge of varieties, even of the same plant, is often a very important element in successful farming.—*Quarterly Journal of Agriculture.*

An Extraordinary Rhubarb Leaf, of the Victoria kind, was exhibited in Stamford market on Saturday last; it measured 6 feet 4 inches in length, 4 feet across, and weighed 6 lbs. 2 oz. It was grown at Lyndon, Rutland, in the garden of Mr. Barfield. The cultivation of the rhubarb plant seems to have arrived at great perfection in some parts of Rutland, the soil being well adapted for its growth. Many persons make wine from it, and it is said to be a very cooling and pleasant beverage.—*Stamford Mercury.*

Use of Sulphuric Acid with Bones as Compost.—With reference to Mr. Pusey's suggestion as to the propriety of using bone-dust (dissolved in sulphuric acid) along with *compost* instead of *water* for turnips, I can confirm his idea from practice, having last year manured 5 acres with only 13 bushels of bone-dust dissolved in 270 lbs. of sulphuric acid and 150 gallons of water. After standing twenty-four hours, the liquid was mixed with 3 cart-loads of *coal-ashes*, and left to remain for a week, during which time it was turned over two or three times. The mixture was then drilled along with the seed, and the result was a fair crop of common turnips, off a piece of poor land, without other manure, and at the cost of only 12s. 9d. per acre.—*English Ag. Soc. Journ.*

Utility of Sowing Wheat Thick.—Nature in seeking to supply what is wanting by thin sowing, will continue to throw out as the roots gain the requisite power, a succession of ears till so late in the season that it will be impossible for the crop to ripen uniformly; the inevitable consequence of which will be an undue proportion of small and defective grain in the produce.—*Ib.*

Water Meadows of the Duke of Portland.—These meadows comprise an area of upwards of 300 acres of land, extending over a distance of about seven miles in length. They are watered by the river Maun, as it flows eastward from the town of Mansfield. The value of the land has been raised from the annual sum of 80*l* to that of 3,660*l.*, at a cost (from their commencement in 1816 to their completion in 1837) of 40,000*l.* The profit upon each acre, after defraying all expenses, is computed at nearly 12*l.* a-year, without taking into consideration the great benefit they are to the arable land adjoining them, which, in the words of Mr. Denison, they "enrich to an extent of five times that of their own." Stretching through a dry sandy district for so long a distance, and thus fertilizing increasingly land so dependent on foreign aid, must show at a glance their almost incalculable value. As a triumph of art, they must be considered one of the most brilliant and complete of any that is known, reflecting credit equally on the talents of the noble owner as projector, and on the intelligence of Mr. Tebbet, as executor of the works.—*Ib.*

Wages of Agricultural Laborers in France.—The wages of laborers seem to be lower in France, even in proportion to the low price of provisions, than in England. The General Council of the different departments fix tariffs for regulating the price at which different services shall be convertible into money. By these the price of a day's work of a laboring man is rated generally at 10d., never higher than 12½d., and sometimes as low as 7½d.; that of a horse or mule from 10d. to 12½d; and the hire of a two-wheeled cart, from 10d. to 15d. These low rates of payment render the waste of labor of men and horses, so much reproached by the Scotch to their neighbors, less astonishing in France than in England, where it is sometimes carried to a greater extent. In plowing, a man usually works three horses in Normandy, and only two men accompany the largest merchant waggons, one driving and the other sometimes asleep in front, or in the hammock below. Frequently, however, one sees strong men employed at such work as a woman, or even a child, might quite as well perform, such as weeding corn with the wooden pincers used for that purpose, or herding a few geese or sheep at the road sides.—*Journal of Agriculture.*

An Extraordinary Prolific Sow.—Our respected townsman, Mr. Chas. Minshull, of Highgate, has a sow which has produced him 61 pigs in one year, viz., on the 13th of May, 1844, 21; 5th of November, 18; 1st of May, 1845, 22; total 61. Of this valuable breed Mr. Minshull has brawn of the November litter.—*Birmingham Advertiser.*

Industry of German Women.—In my way from Spa, I saw a woman threshing in a barn with a man; she beat her time well, and laid it on as hard as her partner. This, I think, nearly makes up the list of female accomplishments. Brick-making, stone-breaking, wheat-sowing, reaping, mowing, threshing, and carrying heavy loads, are pretty little additions to the burdens that nature lays upon the sex: I have not yet seen any female postillions, or top-sawyers, but I live in hopes. In the evening band at the Brunnen, at Aix, a woman plays the violoncello.—*Journal of a Patient under the Hot Water Cure.*

Water in a Sheep's Head.—Strange but True.—Mr. John Scurr, farmer, of Greenside Trimdon, near Sedgefield, a short time ago had a sheep, which, for a fortnight, had been ill. Three days it was unable to get upon its feet. Mr. Scurr happened to have a friend, who called upon him on business, and they together went to see the sheep. His friend pronounced the animal all but dead, it being ill of the "sturdy," or water in the head, which he said was incurable. They consequently left the sheep to die. A servant boy, named Gilpin, who lived with Mr. Scurr, overheard their discourse, and immediately went to his master's house, and procured a gimblet, when he returned to the field where the sheep was, and, without practice, or skill in the art, began cautiously to operate upon the head of the animal, by boring a hole exactly upon the top of the scalp, which done, the water streamed out of the head, and, strange to say, in a very few minutes the sheep got upon its feet and started to eat grass, and is now doing as well as any of its fellow grass-eaters.—*New Farmer's Journal.*

Remedies for the Prevalent Distemper amongst Cattle.—An old farmer says he lost several cattle before adopting the following method, but since, every one recovers that is attacked:—As soon as the distemper appears, separate the sound cattle from those affected; neither let hay, litter, nor vessels used by the sick, come near the sound cattle; also keep them away from the dung of the sick; give the sick cows warm water to drink, with a very little ammonia, and a handful or two of salt in it; let them have plenty of air and exercise, but don't allow them to stand in a draught or current of air; it will be all the better if tar is put in their trough; they must have no gruel or soft hay; good wiry hay is best as food for them, and an occasional mash; they must have no clothes on. If the hoofs are bad, dress them with rectified spirits of tar. By timely attention to the above plan of treatment, no cattle need be lost.—*Ross-shire Advertiser.*

Prepared Timber.—The Liverpool Standard says, that Mr. Raye, a practical chemist, has discovered a process that renders timber impervious to dry rot, an object of the greatest importance to ship-builders.—Unlike previous inventions of the kind, it does not destroy the edges of the tools used in forming it to any required shape; and what is more peculiar, it in a great measure resists combustion, and even when withdrawn from a fierce fire will become instantly black, and not moulder as ordinary timber would, proving its applicability for the flooring of fire-proof warehouses.

Large Gooseberry.—A day or two ago, a gooseberry was pulled in the garden of Mr. William Stirling, Kirkintilloch, which measured 4¾ by 4½ inches. This gigantic berry belongs to the class of Lancashire berries, known by the name of the "companion," and is not likely to be matched even in Dumfriesshire.—*Glasgow Argus.*

Cattle in Great Britain and Ireland.—There are, according to Parliamentary returns, 2,250,000 horses, worth about £67,000,000; about 15,000,000 of black cattle, worth about £215,000,000; 50 000,000 of sheep, worth about £67,000,000; and 18,000,000 swine, worth about £18,270,000.—*New Farmer's Journal.*

Extraordinary Pig.—An extraordinary pig was littered at Haxey, on Saturday week. It has eight legs, four ears, four eyes, and what appear to be two heads amalgamated in one. This extraordinary animal, which was littered with thirteen others at the Duke William Inn, Haxey, died soon after its birth.—*Ib.*

Garlic a Cure for Epidemic in Swine.—It was stated at a late meeting of a farming society, that garlic was an effectual cure for the epidemic among pigs; that a few cloves (two or three), bruised and boiled in a little milk, and given when the disease had set in, would immediately counteract it. The following was brought forward, with many others, as a proof of this: A man, who bred pigs extensively, was prevailed upon by a neighboring farmer, to give a few cloves of garlic, in the manner I have stated, to six pigs which had been attacked with the disease. This was done in the evening, and on the following morning they were perfectly recovered; whilst two others that had been attacked by the disease at the same time, in the same piggery, but to which the garlic had not been administered, were found dead. If garlic be such a remedy as the foregoing, which many other cases prove it to be, I think every person should avail himself of this, by planting in his garden a few cloves of this simple cure for a malignant distemper.—*Ib.*

To Diminish the Draught of Plows.—We may consider that upon an average, 35 per cent. of the labor of plowing is attributable to the weight of the implement, 55 per cent. to the operation of cutting the furrow-slice, and only ten to the action of the mould board. This conclusion, if it be correct, reverses most of our pre-conceived opinions on the subject: the attempts which have been made to diminish the draught of plows have been mostly directed to the alteration of the form of the mould board; let our plow-makers direct their efforts more to facilitate the action of the sock and coulter, and to diminish, within safe limits, the weight of the implement, and they will, probably, be more successful in lessening its draught.—*Gar. Chron.*

NEW YORK STATE AGRICULTURAL SOCIETY.

The meeting of the Executive Committee of the State Ag. Society for August, was held at the Society's Room in Albany, on the 14th August—Present,

B. P. Johnson, of Oneida, President.
E. P. Prentice, Vice President, Albany
Alexander Walsh, Rensselaer.
George Vail, Rensselaer.
Thomas Hillhouse, Treasurer.
Luther Tucker, Recording Secretary.

Letters were read from Hon. Wm. H. Seward, Auburn; Hon. Luther Bradish, New York; Hon. Josiah Quincy, Jr., Boston; Isaiah Townsend, Albany; James Gowen, Esq., Philadelphia; James S. Wadsworth, Geneseo; Francis Rotch, London; James Taylor, Birmingham; Hon. John Savage, Salem; Lewis F. Allen, Buffalo; Paris Barber, Homer.

The Board then proceeded to complete the list of Judges to award the Premiums at the next State Fair The following are the

Judges to Award the Prizes.

Cattle, Class I.—James Gowen, Philadelphia; J. S. Skinner, New York; Thomas Hollis, Gilbertsville.

Cattle, Classes II, III, IV.—Adam Ferguson, Watertown, C. W.; F. Ingersoll, Vernon; D. D. Campbell, Schenectady.

Cattle, Classes V. and VI.—J. R. Speed, Caroline; Wm. Fuller, Skaneateles; Aaron Petrie, Little Falls.

Working Oxen.—Sanford Howard, Albany; Andrew J. Bell, Lairdsville; Squire M. Brown, Elbridge.

Steers.—E. P. Beck, Sheldon; Cliff Eames, Rutland; Israel Boies, Homer.

Fat Cattle and Fat Sheep.—Ela Merriam, Leyden; Lester Barker, Clinton; P. N. Rust, Syracuse.

Stallions.—J. M. Sherwood, Auburn; Wm. Jones, Queens Co.; Edward Long, Cambridge.

Mares and Colts.—Anthony Van Bergen, Coxsackie; Willard Ives, Watertown; F. P. Bellinger, Herkimer.

Matched Horses.—Wm. Salisbury, Leeds; Duncan Robinson, Fishkill; H. S. Woodruff, Auburn.

Sheep, Class I.—W. A. S. North, Duanesburg; Robt. Musson, Gilbertsville; Jas. Parker, Jr., Trenton.

Sheep, Class II.—S. Waite, Jr., Montgomery; W. H. Sotham, Albany; Lyman Sherwood, Auburn.

Sheep, Class III.—Chester Buck, Lowville; Samuel Cheever, Stillwater; D. R. Gill, Henderson.

Sheep, Class IV.—J. P. Beekman, Kinderhook; J. M. Ellis. Onondaga Hill; M. Y. Tilden, New Lebanon.

Swine.—L. B. Langworthy, Rochester; George Webb, Pamelia; Hiram Hopkins, Cortlandville.

Poultry.—C. N. Bement, Albany; T. H. Hyatt, Rochester; Storrs Barrows, South Trenton.

Vegetables.—D. B. Fuller, Hyde Park; B. W. Dwight, Clinton; H. L. R. Sanford, Volney.

Plows.—George Geddes, Tyler; C. C. Dennis, Auburn; M. L. Brainerd, Rome.

Waggons, Harrows, Cultivators, Fanning Mills, Machines for cutting corn stalks, Horse Powers and Threshing Machines, Drill Barrows and Straw Cutters.—H. S. Randall, Cortlandville; G W. Patterson, Westfield; Myron Adams, East Bloomfield.

All other Agricultural Implements.—Pomeroy Jones, Lairdsville; John Williams, Jr., Salem; T. R Hussey, Auburn.

Butter.—E. W. Bateman, Venice; Z. Barton Stout, Richmond Hill; Elijah Rhoades, Manlius.

Cheese.—T. C. Peters, Darien; Thomas Burch, Little Falls; Harrison Blodgett, Denmark.

Sugar.—O. Hungerford, Watertown; E. Mack, Ithaca; George B. Rowe, Canastota.

Silk.—Alexander Walsh, Lansingburgh; Samuel Thompson, Utica; John Walsh, Albany.

Domestic Manufactures.—Judge Conkling, Auburn; Roswell Randall, Cortlandville; Le Grand Cannon, Troy.

Fruits.—J. J. Thomas, Macedon; Chas. Downing, Newburgh; P. Barry, Rochester.

Flowers.—Professor Jackson, Schenectady; Benjamin Hodge, Buffalo; Charles Tracey, Utica.

Plowing Match.—Lewis F. Allen, Buffalo; N. S. Wright, Vernon Centre; E. Marks, Tyler; Wm. Otley, Oaks Corners; John Johnston, Geneva.

Miscellaneous and Discretionary Premiums.—Thomas Farrington, Oswego; B. N. Huntington, Rome; Joel Rathbone, Albany; J. J. Viele, Lansingburgh; Oliver Phelps, Canandaigua.

Transportation of Stock.

The Committee, on this subject, reported that arrangements had been made with the different Railroad Companies, whose officers, with their usual liberality, had agreed to transport *free of charge*, all animals and articles designed for exhibition at the Fair.

They further reported, that extra trains would be run, in which visitors to the Fair will be carried for a sum not exceeding half the usual rates on the roads Of their times of starting, notice will be given, as soon as the arrangements are completed.

Splendid Sample of Wheat.

The Recording Secretary presented the following letter with the accompanying sack of wheat:—

L. Tucker, Esq., Rec. Sec'. N.Y. S. Ag. Society.

Sir—I send you for the State Agricultural Society, a sack of the wheat considered the best grown in old Castile, and sent me lately by a friend in the north of Spain.

The Talavera wheat, already familiar to English and American farmers, is also a Spanish variety. It came originally from Estremadura, a province in the south of old Castile, and of a milder, more uniform climate. The Castilian wheat, it may therefore be inferred, will prove a hardier species.

I have sent to Gen. Rawson Harmon a similar sack, and proposed to him, should its introduction be accomplished under his experienced and enlightened management, to name this variety the *Aguirre wheat*, after D. Macsimo Aguirre, our excellent Consul at Bilboa, to whose good offices I am indebted for the specimens I have received.

Gen. Harmon remitted me last winter, for a friend in France, several varieties grown under his care at Wheatland. Ten kernels taken indiscriminately from these, weighed,

of White Provence (French),	8½	grains
Wheatland Red,	5½	"
Virginia May,	5	"
Soul's Red,	5 4-10	"
Soul's White,	5 4-10	"
Talavera,	7	"
Improved White Flint, (*a*)	5	"
The " Aguirre" weighed	8½	"

A person as little acquainted practically with the tillage of wheat as the writer, would infer from the above table, that a certain weight of French Provence, White, or " Aguirre wheat," would furnish a greater amount of flour, and less amount of bran, than an equal weight of either of the other varieties.

The bread made from the wheat of old Castile, I have never seen surpassed in whiteness. In Spain, as you are perhaps aware, this universal article of consumption is not leavened.

What I send is for distribution, if you think worth while. I will seal up four or five pounds which might be kept in the rooms of the Society, as a standard whereby to determine the changes the wheat may undergo by culture in America.

Respectfully, yours, Isaiah Townsend.

P. S. I have just had weighed a half-peck of the wheat. The weight was 8 lbs. 9 oz., avoirdupois. This would give 68½ lbs. to the bushel. As this exceeds by 2½ lbs. the heaviest wheat (Hungarian) in Lawson's Museum (Vide his Agriculturalist's Manual, p. 14), I think it wants verifying by a better balance than that I used, the scales of a corner grocery. I. T.

On motion of the President,

Resolved, That the thanks of the Society be tendered to Mr. Townsend for the splendid specimen of wheat accompanying the above letter; and that the same be distributed to members of the Society, with a request that they make trial of the same, and report the result to the Society.

The President was requested to procure a windlass and dynamometer, for the trial of plows.

The Recording Secretary and Treasurer were directed to procure the necessary badges and tickets for the ensuing Fair.

The Recording Secretary presented a copy of the 9th vol. of the *Farmer's Cabinet*, from the publisher, J. Tatem, Esq., for which the thanks of the Society were voted.

The fifth annual Fair and Show of the State Agricultural Society is approaching, and the interest which is manifested, shows that our Society has lost none of the confidence of the agriculturists of the State. The previous exhibitions have been attended by immense gatherings from different parts of our own State, as well as large numbers from other States in the Union.

The location of the Fair at Utica being near the centre of the State, will undoubtedly secure a larger attendance than at any previous Fair of the Society.

The arrangements it is believed will be such as to meet the expectations of the public, and the citizens of Utica are making preparations that will insure suitable accommodations for all who may be in attendance.

The list of premiums of the Society embraces a very great variety of articles—and are so extended as to secure a very spirited competition.

In the appointment of the Judges the officers have selected such names as will secure the confidence of the public, in the awards that may be made.

We would urge upon the friends of agriculture throughout the State, to make vigorous efforts to bring out our citizens at the approaching Fair. Every year we have added to the list of our friends, from those who have attended our exhibitions, and we desire still to add to their numbers, until every farmer in the State, as well as every other citizen, shall take a deep interest in our Society, which is identified with the permanent prosperity of the State.

Arrangements have been made for the ladies, that will secure a tasteful display of the articles they may exhibit; and it is hoped that in this department we shall witness a display excelling that at any former meeting of the Society.

REGULATIONS FOR THE SHOW.

All members of the Society, and all who may become members at the time of the Fair, by the payment of $1.00, will be furnished with Badges which will admit the person and his wife and children under 21 years of age, to the exhibition, at all times during the Fair. Tickets to admit a single person, 12½ cents.

Members will be allowed to enter in carriages with their families, but no hacks or other public conveyances will be permitted to enter except when the inmates are members of the Society, without paying a dollar for each entrance, and the inmates, if not members, to furnish themselves with tickets.

Gentlemen may become members and obtain badges at the stage office of J. Butterfield & Co; and at th kstores of I. Tiffany, G. Tracey and Bennett, ckus & Hawley, Genesee street, Utica, or at the usiness Office at the show-yard.

All exhibitors at the Fair must become members of the Society, and have their articles entered at the Business Office before taking them into the enclosure.

All those who intend to compete for the premiums on agricultural implements, butter and cheese, sugar, cocoons, silk, &c., should have their specimens on the ground on the 16th, that they may be deposited in their appropriate places, and the rooms suitably arranged on the day previous to the Fair.

No premiums will be paid on animals or articles taken away before the close of the Fair.

Everything intended for the exhibition must be on the ground at or before nine o'clock, on the morning of Wednesday, the seventeenth.

Animals and other articles offered for exhibition, must be labelled with the owner's name and residence at full length.

THE COMMITTEES TO AWARD PREMIUMS.

The several Committees to award Premiums are requested to report themselves at the Society's room, at Bagg's Hotel, on Tuesday evening, the 16th, or at the business office on the show grounds previous to ten o'clock on Wednesday morning, the 17th, after which all vacancies will be filled, and the committees will enter upon their duties at twelve o'clock.

The Judges are requested to furnish their awards to the Recording Secretary by twelve o'clock on Thursday, that a list may be made out from which the Treasurer can pay the prizes immediately on the Reports being read from the stand.

The Judges will not award the prizes offered, unless in their opinions the animals or articles exhibited are worthy of the premiums.

Prize animals and implements at the previous exhibitions will be allowed to compete for the prizes; but they must receive a higher prize, or in a different class, to entitle them to a premium. Should the same premium heretofore given them be awarded, they will receive a certificate to that effect instead of the prize.

No viewing committee, with the exception of the Committee on Discretionary Premiums, shall award any discretionary premium, without the previous permission of the Executive Board, expressed through the President.

The annual Address will be delivered, under the large tent, at 3 o'clock on Thursday afternoon, by Hon. Josiah Quincy, Jr., of Boston.

Immediately after the Address, the Reports of the Committees to award the Premiums will be read, and the Premiums paid at the Treasurer's office. The Treasurer will also be in attendance at the Society's Room, at Bagg's Hotel, on Thursday evening and on Friday, for the purpose of paying Premiums.

On Thursday afternoon, the Premium Animals will be exhibited on the grounds, separate from the others, with cards showing the premium awarded to each animal, so that the public may have an opportunity of viewing the animals which have been adjudged worthy of the Premiums of the Society.

TRANSPORTATION OF STOCK.

Arrangements have been made with the different Railroad Companies, whose officers, with their usual liberality, have agreed to transport, *free of charge*, all animals and articles designed for exhibition at the Fair.

Gentlemen who intend to send their stock by the railroad, must give notice at least one week previous to the Fair, to Luther Tucker, Albany; M. D. Burnet, Syracuse; J. M. Sherwood, Auburn, L. B. Langworthy, Rochester; or L. F. Allen, Buffalo, so that the necessary preparations may be made by the companies for their transportation.

Extra trains of cars, both east and west of Utica, will be run, in which visitors to the Fair will be carried for a sum not exceeding half the usual rates on the roads. Of their times of starting, notice will be given as soon as the arrangements are completed. The Packet Boat Companies have made arrangements to facilitate the conveyance of visitors at reasonable rates.

It is expected that the operations of the MAGNETIC TELEGRAPH will be exhibited on the grounds during the Fair. It is intended by the proprietors of this work, to have it ready for operation from Utica to Little Falls, a distance of twenty miles.

Articles designed for exhibition at the Fair, may be directed to the care of FARWELL & HARRINGTON, Utica, who will take charge of them as directed by the owners.

(*a*) These weighed respectively, after being soaked 36 hours in a strong solution sulphate ammonia, 11—6¾—6¾—6½—6¾—9—7¼ grains. I have not soaked any of the Castilian variety.

Editor's Table.

Destruction of Sheep by Dogs.—The Frankfort Commonwealth says that a few nights ago, 63 choice ewes, selected for breeders on account of their wool, owned by Captain John A. Holton, of Franklin county, were killed by dogs. Mr. Payne recently had 40 sheep killed and 20 wounded, and these are only common occurrences in Kentucky. It is a pity all dogs could not be dispensed with there, except those of the shepherd breed.

Manufacture of Castor Oil.—This was commenced in Illinois about twenty years ago. The produce the first year, was 500 gallons In 1831, 10,000 gallons were made. It appears the quantity now manufactured in Illinois and Missouri is above 100,000 gallons—the produce of about 10,000 acres of land.

Oxalic Acid in Rhubarb or Pie Plant.—A family of four persons in this city, recently, after eating freely of the leaves of the domestic rhubarb or pie plant, boiled, and served as "greens," were, all of them, shortly seized with severe vomiting. In one of the persons it was followed by gastritis. The others recovered directly after the vomiting. We have occasionally seen notices in newspapers of this plant producing noxious effects. Will some of our chemical friends furnish us with a quantitative analysis of it, with reference especially to the proportion of oxalic acid, which it contains?—*Buffalo Med. Journ.*

Sugar Cane.—The first sugar cane was brought to the bank of the Mississippi in 1751. It came in a French ship of recruits. The cane was planted by the Jesuits, where now is the second municipality of New Orleans. The period elapsed is ninety-four years, and in that time the product of sugar on the Mississippi alone has increased to about 200,000 hogsheads, and that in the United States to 126,400,310 lbs: while the price has also decreased from 50 cents per lb. in 1760, to 5 and 6 in 1845.—*South West. Farmer.*

Galls from th. Harness or Saddle.—Major Long, in his expedition to the Rocky Mountains, says that his party found white lead, moistened with milk, to succeed better than anything else in preventing the bad effects of galls on their horses' backs, in their fatiguing march over the plains that border the mountains.

Culture of the Orange.—The Savannah Republican says, that the groves on many of the islands along their coast, are in a high state of prosperity, and that the yield the last season was more than usually abundant. A gentleman south of that informs them, that his trees are apparently more thrifty now than were those grown by him prior to 1835, and which were killed by the great frost of that year. His yield this year has been about 40,000, and should the next season be as favorable as the last, his crop, he thinks, will reach 100,000.

Ditching Machine.—One of these has been invented at Chicago, which promises to supersede the use of spades. By the assistance of two yoke of oxen and two men, it will cut a ditch two feet deep by three feet at the top, and eighteen inches at the bottom, at the rate of 20 roods per day.

CHOICE PEACHES. During the first week in August, we received from Nathan Boulton, Esq., of Pencada, Newcastle County, Delaware, through Mr. Fields, of this city, a basket of Early Rare ripe peaches, the first bearing of a young tree, producing two full baskets. The fruit was large, clear, and delicious, and a very acceptable present, for which we return the donor many thanks.

LOWELL AS IT WAS AND AS IT IS. By Rev. Henry A. Miles. Powers & Bagley, and N. L. Dayton, Lowell. A beautiful little volume of 234 pages, got up in the neatest style of typography, and illustrated with a map and pretty view of the town and surrounding country. The thriving city of Lowell and its various manufactures, but, above all, its *factory girls*, has become quite a lion the world over, and to the thousands who are curious for full information on this highly interesting, and we may add very important subject—we recommend the above volume to their perusal. Its elaborate statistical tables prove one thing at least, that manufactories conducted upon the Lowell principle, may not only add to the resources and wealth of the country at large, prove of incalculable benefit to agriculture, but at the same time advance the pecuniary interests of the operatives, improving with an equal step their intellectual and moral faculties. Instead of being a curse to the country, as a few bigoted and prejudiced persons may suppose, such cities as Lowell are a great blessing to it in every sense of the word.

ORATION Delivered before the Agricultural and Mechanics' Association of Louisiana. By Judge P. A. Rost. This is an able, a well timed, and highly useful discourse, occupying a pamphlet of 16 pages. We had marked several passages for extracts, but find no room for them this month. We are obliged to the unknown friend who sent us this Oration.

BLACKWOOD'S MAGAZINE commences a new volume, and may be had of Leonard Scott & Co., 112 Fulton street. Price $3 a-year.

THE FARMER'S LIBRARY AND MONTHLY JOURNAL OF AGRICULTURE. The second number of this valuable periodical, edited by Mr. Skinner, made its appearance promptly in August. The lithograph engravings are the celebrated trotter, Lady Suffolk, and the Canada thistle. The articles throughout are well written and selected.

THE AMERICAN QUARTERLY JOURNAL OF AGRICULTURE. The third number of this excellent periodical, edited by Dr. Emmons and Dr. Prime, came to hand last month. We were particularly interested in an article on the Geology of Agriculture, as well as several others. We hope this journal may be sustained.

THE SOUTH WESTERN FARMER. We sincerely regret to see that this highly useful paper has been obliged to stop for want of proper support. It was published at Raymond, Miss., and edited by Mr. North and Dr. Philips. We hope it may soon be revived.

TO CORRESPONDENTS.—J. H. Jenne, E. S., Philip Winfree, John P. Norton, H., and B. B., are received.

REVIEW OF THE MARKET.

PRICES CURRENT IN NEW YORK, AUGUST 25, 1845.

ASHES, Pots,	per 100 lbs.	$3 75	to	$3 81
Pearls,	do.	4 6	“	4 12
BALE ROPE,	lb.	6	“	9
BARK, Quercitron,	ton,	22 00	“	23 50
BEANS, White,	bush.	1 12	“	1 25
BEESWAX, Am. Yellow,	lb.	28	“	33
BOLT ROPE,	do.	12	“	13
BONES, ground,	bush.	40	“	50
BRISTLES, American,	lb.	25	“	65
BUTTER, Table,	do.	16	“	22
Shipping,	do.	9	“	13
CANDLES, Mould, Tallow,	do.	9	“	11
Sperm,	do.	25	“	38
Stearine,	do.	20	“	25
CHEESE,	do.	4	“	8
COAL, Anthracite,	2000 lbs.	4 50	“	5 50
CORDAGE, American,	lb.	11	“	12
COTTON,	do.	5	“	10
COTTON BAGGING, Amer. hemp,	yard,	12	“	13
American Flax,	do.	16	“	17
FEATHERS,	lb.	26	“	33
FLAX, American,	do.	6½	“	7½
FLOUR, Northern and Western,	bbl.	4 25	“	4 75
Fancy,	do.	5 00	“	5 50
Southern,	do.	4 00	“	4 75
Richmond City Mills,	do.	6 00	“	6 25
Rye,	do.	3 00	“	3 25
GRAIN—Wheat, Western,	bush.	95	“	1 00
Southern,	do.	85	“	95
Rye,	do.	69	“	75
Corn, Northern,	do.	60	“	64
Southern,	do.	58	“	60
Barley,	do.	50	“	52
Oats, Northern,	do.	41	“	42
Southern,	do.	34	“	36
GUANO,	100 lbs	2 50	“	3 00
HAY,	do.	75	“	1 00
HEMP, Russia, clean,	ton,	180 00	“	185 00
American, water-rotted,	do.	105 00	“	185 00
American, dew-rotted,	do.	75 00	“	125 00
HIDES, Dry Southern,	lb.	9	“	11
HOPS	lb.	12	“	16
HORNS,	100.	2 00	“	8 50
LEAD.	lb.	3	“	4
Sheet and bar	do.	4½	“	5½
MEAL, Corn,	bbl	2 31	“	2 56
Corn,	hhd.	11 50	“	12 00
MOLASSES, New Orleans,	gal.	28	“	31
MUSTARD, American,	lb.	16	“	31
NAVAL STORES—Tar,	bbl.	2 25	“	2 37
Pitch,	do	80	“	1 00
Rosin	do.	55	“	70
Turpentine,	do.	2 75	“	3 25
Spirits Turpentine, Southern,	gal.	37	“	40
OIL, Linseed, American,	do.	66	“	70
Castor,	do.	57	“	68
Lard,	do.	55	“	70
OIL CAKE,	100 lbs.	1 00	“	—
PEAS, Field,	bush.	1 25	“	1 50
PLASTER OF PARIS,	ton,	2 75	“	3 00
Ground, in bbls.,	of 300 lbs.	1 12	“	1 25
PROVISIONS—Beef, Mess,	bbl.	8 00	“	10 00
Prime,	do.	5 50	“	6 50
Smoked,	lb.	6	“	8
Rounds, in pickle,	do.	4	“	6
Pork, Mess,	bbl.	12 00	“	14 00
Prime,	do.	9 00	“	11 00
Lard,	lb.	7½	“	8½
Bacon sides, Smoked,	do.	3	“	4
In pickle,	do.	3	“	4
Hams, Smoked,	do.	6	“	10
Pickled,	do.	4	“	7
Shoulders, Smoked,	do.	5	“	6½
Pickled,	do.	4½	“	5
RICE,	100 lbs.	3 75	“	4 38
SALT,	sack,	1 35	“	1 48
Common,	bush.	20	“	30
SEEDS—Clover,	lb.	8	“	9½
Timothy,	7 bush.	13 50	“	17 00
Flax, rough,	do.	8 50	“	9 00
clean,	do.	11 00	“	12 00
SODA, Ash, cont'g 80 per cent. soda,	lb.	3	“	3
Sulphate Soda, ground,	do.	1	“	—
SUGAR, New Orleans,	do.	5	“	8
SUMAC, American,	ton,	35 00	“	37 50
TALLOW,	lb.	6½	“	7½
TOBACCO	do.	3	“	7
WHISKEY, American,	gal.	23	“	24
WOOL, Saxony,	lb.	35	“	50
Merino,	do.	30	“	35
Half-blood,	do.	25	“	30
Common,	do.	20	“	25

NEW YORK CATTLE MARKET—Aug. 25.

At Market, 1800 Beef Cattle; 150 Southern; 50 Cows, and 3100 Sheep and Lambs.

PRICES.—Beef Cattle.—A very dull market, and sales effected only at a decline. We quote $3*a*$5.50 as the general range, with a few choice at 6 cts. Left over, 600 head.

COWS AND CALVES.—All at market sold at $14*a*$26.

SHEEP AND LAMBS.—Sheep may be quoted at 75 cts. *a* $3, and Lambs 87½ cts. *a* $2.50 and a good demand.

HAY—All at market taken at 87½ cts. *a* $1 12½ per cwt. for loose.

REMARKS.—*Ashes* steady and in fair request. *Cotton* has experienced a slight decline, and is heavy. Export since the 1st September last, 2,070,271 bales; same time last year, 1,602,619; same time, year before, 2,000,769. *Flour* and *Meal*.—A good demand for export has sprung up, since the arrival of the last steamer. *Grain* of all kinds in moderate request. *Hay* inactive. *Naval Stores*, a light stock on hand. *Pork* and *Beef* are on the advance again, with moderate stocks in market. *Lard* quite active. *Rice* an upward tendency. *Seeds* a good demand. *Sugar* and *Tobacco* the same. *Wool*. — Since our editorial, page 270, written a fortnight since, quite an active demand has sprung up, and the finer qualities have advanced 1 to 2 cents per pound. Some 30,000 lbs. have been shipped the past month for England and France.

Money the same as at our last.

Stocks firmer since a war with Mexico is not so threatening.

The Weather. In this vicinity the weather has continued very hot, with copious showers, since the first week in August. We believe this has generally been the case north of us; but in some districts of the west, and particularly along the sea shore at the south, great want of rain has been felt. Such a dry season has not been known since the year 1795. As to the crops, we find such differences of opinion, that it is almost impossible to reconcile them, and fuse into one mass the discrepant reports. We believe, however, that the wheat crop, as a whole, never was better. Rye, oats, and barley, fair; corn, with the exception of partial failures, promising at the north and west; at the south not so good—in some districts not half a crop; hay not over two-thirds of a crop, so far as weight is concerned. But as an offset to this, it has been uncommonly well secured, and the weather being so dry, it is of a superior nutritious quality. Potatoes are turning out better than was anticipated, and we hear little more of the rot. Other kinds of roots are looking well, and turnips are particularly promising. Cotton will be a large crop, except in South Carolina and Georgia. Tobacco is heavy in Missouri and Kentucky, but light in Virginia. Hemp nearly the same. Rice about an average. Sugar very promising, both in Texas and Louisiana.

N. Y. AGRICULTURAL WAREHOUSE.

Having taken the commodious store, No. 187 Water Street, the subscriber is now opening the LARGEST AND MOST COMPLETE assortment of Agricultural Implements of all kinds, ever yet offered in this market. Most of these are of new and highly improved pattern, warranted to be made of the best materials, put together in the strongest manner, of a very superior finish, and offered at the lowest cash prices.

SEEDS FOR THE FARMER.

Such as improved Winter and Spring Wheat, Rye, Barley, Oats, Corn, Beans, Peas, Rutabaga, Turnip, Cabbage, Beet, Carrot, Parsnep, Clover and Grass-seeds, improved varieties of Potatoes.

WIRE-CLOTHS AND SIEVES.

Different kinds and sizes constantly on hand.

FERTILIZERS.

Peruvian and African Guano, Poudrette, Bonedust, Lime, Plaster of Paris, &c.

FRUIT AND ORNAMENTAL TREES AND SHRUBS.

Orders taken for these, and executed from a choice of the best Nurseries, Gardens, and Conservatories in the United States.

HORSES, CATTLE, SHEEP, SWINE AND POULTRY.

Orders executed for stock of all kinds, to the best advantage.

The subscriber requests samples sent to him of any new or improved Implements, Seeds, &c., &c., which, if found valuable, extra pains will be taken to bring them before the public.

A. B. ALLEN, 187 Water Street, New York.

DEVON CATTLE FOR SALE.

E. P. Beck will sell at public sale, on Wednesday the 15th of October next at his dwelling in Sheldon, Wyoming co., N. Y., a large portion of his valuable stock of pure Devon Cattle. It consists of calves, yearlings, steers, heifers, cows, and bulls of various ages. One year's credit will be given on approved security to all who wish it.

Sheldon, Aug. 20, 1845. 2t

SUPERIOR CRANBERRY VINES.

During the fair of the American Institute, in October, the subscriber will be in attendance at Niblo's Garden, with specimens of the fruit of his superior cranberries. He will also have cranberry vines for sale in lots to suit purchasers.

2t SULLIVAN BATES, of Billingham, Mass.

CHEAP CASH BOOK STORE.

SAXTON & MILES, 205 BROADWAY, N. Y.,

Booksellers, Publishers, and Stationers.

They would particularly call attention to their assortment of works pertaining to Agriculture and Rural Economy, a few of which are enumerated, with the retail prices, from which a liberal discount will be made when a number of works are ordered at one time, viz.:

The American Poulterer's Companion; a practical *Treatise* on the Breeding, Rearing, Fattening, and General Management of the various Species of Domestic Poultry, with illustrations (fifty or sixty) and portraits of fowls taken from Life. By C. N. Bement. Second edition. Price $1.25.

Clater and Youatt's Cattle Doctor, containing the causes, symptoms and treatment of all the diseases incident to Oxen, Sheep, and Swine. Price 50 cts.

Dumas & Boussingault's Chemical and Physiological Balance of Organic Nature. Price 50 cents.

The American Race Turf Register, Sportsman's Herald, and General Stud Book. By P. N. Edgar. Price $2.

Liebig's Agricultural and Animal Chemisty. Price 25 cents each.

Liebig's Familiar Letters on Chemistry. Price 12½ cts.

Loudon's Encyclopædia of Agriculture (English). Price $10.

Loudon's Encyclopædia of Gardening. Price $10.

Bridgeman's Young Gardener's Assistant, new edition, much enlarged. Price $2.

The Farmer's Mine; being the most complete work on Manures ever published. Price 75 cts.

The Vegetable Kingdom, or Hand-Book of Plants. Price $1.

Yonatt on the Horse; a new edition. Price $1.75.

The Complete Farmer and Rural Economist, by Thomas G. Fessenden. Price 75 cts.

The New American Orchardist, by William Kenrick. Price 87½ cts.

The Honey Bee, its Natural History, &c., with 35 engravings. Price 31 cts.

Bees, Pigeons, Rabbits, and the Canary Bird, familiarly described. Price 37½ cts.

The American Poultry Book; being a practical treatise on the management of Domestic Poultry. Price 37½ cts.

A Treatise on Sheep, with the best means for their general management, improvement, &c.; by A. Blacklock. Price 50 cts.

The Theory of Horticulture; or an attempt to explain the principal operations of Gardening upon Physiological Principles; by John Lindley. Price $1.25.

Gardening for Ladies, and Companion to the Flower Garden, by Mrs. Loudon. Price $1.50.

American Husbandry. Price $1.

The Farmer's Instructor; consisting of Essays, Practical Directions, and Hints for the Management of the Farm and the Garden; by J. Buel, 2 vols. Price $1.

A Muck Manual for Farmers; by Samuel L. Dana. Price 50 cts.

Chemistry applied to Agriculture; M. Le Compte Chaptal. Price 50 cts.

The American Florist, by James Norman Eley. Price 37½ cts.

Catechism of Agricultural Chemistry and Geology, by James F. W. Johnson, M. A. &c., with an introduction by John P. Norton. Price 25 cts.

The American Agriculturist, in three vols. bound. $1.25 each.

Stable Economy; a Treatise on the Stabling, Grooming, Feeding, Watering, and Working of Horses, by John Stewart; with Notes and Additions, by A. B. Allen. $1.

Downing's Fruits and Fruit Trees of America; their Culture, Propagation, Management, &c. &c.; by A. J. Downing. $1.75.

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The subscriber offers for sale his fine Durham Bull Osceola. He is now two years and a half old, and has taken the first premium at two successive State shows. For pedigree and further description, see Cultivator, Sept., 1843.

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CLARKSON F. CROSBY.

Watervliet, July 1, 1845. 2t*

STALK AND STRAW CUTTERS.

Sinclair's Stalk and Straw Cutters,			price $25 to $35.
Hovey's	do.	do.	$10 to $35.
Stevens'	do.	do.	$10 to $20.
Other kinds for straw and hay,			$3 to $7.

s A. B. ALLEN, 187 Water St., N. Y.

STRAWBERRY PLANTS.

J. M. THORBURN & Co., 15 John street, New York, and Astoria, Long Island, beg to inform the Horticultural public, that they have now ready for delivery, 5000 of *Myatt's Eliza* Strawberry Plants which they have proved by fruiting in beds for two seasons past, and can with confidence recommend this excellent Strawberry to the most limited grower. In England, where it originated, it maintains to this day its celebrity, and in Covent Garden market, London, yields to no other sort than the British Queen, which the Eliza is the parent of. It is of a large size, fine pine flavor, and cockscomb form, bright red color, and erect habit. Price for strong rooted plants in pots, 75 cts. per dozen; out of pots from the bed, $3 per hundred.

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Also, *Scotch Pine Apple*, a very bright colored, oblong fruit, of a sprightly pine apple flavor. $1.50 per hundred; $5 per thousand

The above are quoted at prices which will encourage any one to plant a good sized bed at once. They will produce moderately next spring, and abundantly hereafter.

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Sept, 1845. HOVEY & Co.

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Louisville, Ky. Sept., 1845. 2t *

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TERMS—One Dollar per year in advance; single numbers, Ten Cents; three copies for Two Dollars.

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(*Late Prince's.*)

FLUSHING, L. I., NEAR NEW YORK.

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Descriptive Catalogues, with directions for planting and culture, furnished gratis, on application to the new proprietors by mail, post paid, and orders promptly executed.

WINTER & CO., Proprietors.

Flushing, L. I., Sept. 2, 1845. 2t

A SHEPHERD WANTED.

A person competent to manage a large flock of sheep, see to their shearing, and putting up the wool properly for the New York market, is wanted to go to Harrodsburg, Kentucky. The wages offered are from $150 to $200 a year, with house and provisions. The country there is perfectly healthy, and the situation agreeable. Apply to

WILLIAM THOMPSON, Harrodsburg, Ky., or
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A. B. ALLEN, 187 Water St. N. Y.

CHOICE MERINO BUCKS FOR SALE.

The subscriber offers a few two year old bucks for sale, got by Mr. D. C. Collins' celebrated Rambouillet buck Grandee, out of superior pure bred Merino ewes. Price $20 to $50. Also pure bred Merino bucks of various ages, and at different prices, according to age and quality.

We can ship sheep to any port in the country. For an account of the shearing of our flock, we would refer to the August number of the Agriculturist, page 240, and believe our stock equal to any in the country.

Apply to LEWIS G. COLLINS, Washington, Duchess Co., N. Y., or to R. R. & L. G. COLLINS, Butternuts, Otsego Co., N. Y.

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DURHAM CATTLE FOR SALE.

Nine head of this valuable breed of animals are now offered for sale by the Subscriber, he having more than he can well keep on his farm.

Rose, 9 years old, a good milker, having given 25 quarts milk a day on pasture only. She is in calf by my prize bull Meteor, and will drop her calf about the middle of August.

Empress, nearly as good a milker as Rose. She dropped her calf about the 25th of June and will be bulled by Meteor.

Eunice, 5 years old, bulled by my imported Duke of Wellington, 25th June, is a good milker, her dam having given 32 quarts a day on pasture only.

Julia, 4 years old, recently bulled by Meteor.

Lily, 2 years old, bulled by Meteor 9th June.

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These animals will be sold at $100 to $125 per head. A credit will be given of six months or a year, if desired, for approved paper.

Gentlemen desirous of procuring the blood of the celebrated herd of Thomas Bates, Esq., of Yorkshire, England, may now have an opportunity of doing so, as the young animals possess that blood on the side of their sires; and the cows are in calf by Meteor and Wellington. The cows are descendants of the Bullock stock of Durhams. For the good milking qualities of these animals, &c., I would refer to the editor of the American Agriculturist. Letters, post paid, will receive an answer.

Troy, July 25, 1845. GEO. VAIL.

HARMON'S IMPROVED WHITE FLINT WHEAT.

The subscriber has just received a lot of this superior Seed Wheat, direct from the farm of General Harmon. He writes, that owing to the excessive drouth the past season, the berry is not quite as white and plump in appearance as usual, but the quantity of the flour is fully equal, and the seed may be depended upon to produce as good a crop. It is in barrels of about 3½ bushels each, and will be delivered on board vessel at $7 the single barrel, or $6.50 where three or more are taken at one time.

s A. B. ALLEN, 187 Water St., N. Y.

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AMERICAN AGRICULTURIST.

Agriculture is the most healthful, the most useful, and the most noble employment of man.—WASHINGTON.

VOL. IV. NEW YORK, OCTOBER, 1845. NO. X.

A. B. ALLEN, Editor. SAXTON & MILES, Publishers, 205 Broadway.

FATTING SWINE.

ONE of the most important duties demanding the farmer's attention this month, is the fattening of his swine. The practice of some at the north is, to commence one month later; but this is very bad economy, for all animals will fat much faster in mild weather than in cold. Besides, there is a good deal of stuff about the farm which is never so valuable as in this month; and if gathered up and cooked, is the best food which can be given for the commencement of the fatting process. We would name small potatoes and roots of all kinds, cabbage, turnips, pumpkins, apples, and unripened and imperfect ears of corn. After these have been fed a month or so, commence with a mixture of the different kinds of meal, or corn alone, and shove the animals as fast as possible, getting them ready for the market by the middle of November to the first of January. If delayed longer than this last mentioned period, however cheap food may be, or high the pork may sell, fatting swine will be a losing process.

The hogs should be allowed to exercise a little in the open air, and have charcoal and rottenwood to eat twice a week, and whatever water they may wish to drink. Some contend that they will not fat as fast for this, but that remains yet to be proved by careful experiment. At any rate, we know that the meat is much superior when fatting animals have a moderate degree of exercise, and plenty of fresh air and water. If closely confined they become feverish, and their meat is not only flabby and tasteless, but positively unhealthy.

Another thing. Sufficient attention is not paid to the cleanliness of swine. Depend upon it, no animal pays better for keeping him clean than the hog; and after all, he is not half as dirty a beast as he is usually set down to be. No creature enjoys clean quarters better than he does—tempt him with a good bed of fresh straw, and see. The following experiment was recently tried in England:—Six pigs of the Norfolk breed, and of nearly equal weight, were put to keeping at the same time, and treated the same as to food and litter for about seven weeks. Three of them were left to shift for themselves as to cleanliness; the other three were kept as clean as possible by a man employed for the purpose, with curry-comb and brush. The last consumed in seven weeks fewer peas by five bushels than the other three, yet they weighed more when killed by seventy-two pounds.

Northern farmers may talk as they please, but they don't understand, or rather carry into effect anything like so good a system of fatting swine as those do at the west. There they commence feeding early in September, in a nice grass pasture, with plenty of shade trees, and a clear stream running through it. Here Master Porkibus daily bathes his sleek sides, eats luscious roasting ears to his fill, drinks and walks about or sleeps at his pleasure; and the way he contrives to extract the fat from the corn to cover his rotund ribs, *is quite charming*—completely distancing any other chemical process that the wit of man has yet invented. It is worth a journey of a thousand miles, any time, to take a look at a *small* field of corn of *five hundred acres*, crowning the rich bottoms of the west on one side of a fence, and a *little* herd of *two or three hundred* lusty grunters making away with it on the other. Indeed, we speak within bounds in saying, that we have seen thousands of acres of corn stretching along these valleys, seeming at a little distance like one continued field; and we once counted 537 hogs in one herd. Talk about pork and corn in New York! Take a trip to the Sciota, the Miami, and the Wabash, and one will then get his eyes open and know something about them.

VILLA OF MR. HALSEY.

Among the many handsome villages which environ this great emporium, we know of none for beauty and variety of scenery, healthfulness of location, taste and splendor of its buildings, gardens and grounds, superior to Astoria. In addition to this, it is so easy of access that one can reach it in a single hour from the City Hall, either by land or water, as may be most agreeable, making one of the most delightful rides or steamboat excursions around New York. The only fear with us is, that as the city spreads, Astoria will be too soon incorporated within its limits, and thus lose the rural beauty for which it is now so greatly admired.

Of the villas of Astoria, we have selected for our present notice that of S. Halsey, Esq., because we are most familiar with it, and it is one of the largest and most attractive in the town. The lawn, garden, and fruit orchard comprise about ten acres, bordering near the East river, the grounds rising in wide terraces about twenty feet above the water. They are laid out in regular form, a fine stone house occupying the crowning point, with a sufficiency of lawn and trees and shrubbery around to separate it from the cultivated parts, and to give the whole an agreeable variety. In this garden will be found much that is ornamental, though Mr. Halsey has been more particularly desirous to stock it well with the choicest kinds of fruits. And pray what can be more ornamental, we would ask, than many varieties of fruit trees? The pear and cherry, for example, with their tall, beautiful, cone-shaped tops—the thick, green foliage—and then the blossoms so fragrant in the spring, and the ripe, rich fruit in summer and autumn! Lawns should always be more or less stocked with fruit trees and shrubs, intermingled with those of the forest—indeed, to our taste, they are comparatively bare without them.

Peaches and Cherries.—In the rear of the house is a peach orchard, in which Mr. H. has made an experiment between growing his trees in grass land, and that of keeping them under constant cultivation, treating them otherwise precisely alike. Those in the cultivated plot are at least twice the size at six years old of those in the grass-plot; they also bear well, while from the others little fruit has been plucked, and that of an inferior quality. The crop usually grown among these trees is potatoes well manured. Where peaches are cultivated in large orchards, it is generally considered best to plow the land well, and keep the ground in potatoes or corn; but the smaller grains, especially wheat or rye, have been found highly prejudicial to both trees and fruit. The finest variety of peaches cultivated here are the George the Fourth. They are indeed juicy and luscious in the extreme.

Another little experiment made by Mr. H. was with plum trees. He had two rows of these standing in the open garden several years without producing fruit. He then took them up and set them against a high brick wall, since which they have borne well. He attributes this to the root pruning they underwent in transplanting, and adds, that since removed they have not been attacked by the curculio. For this exemption no reason can be given, save that the insect does not find the trees so readily when trained against a wall, as when in open ground. We should like to hear whether others have experienced the same result.

Grapes.—Mr. H. has a range of about 400 feet of hot-houses, chiefly devoted to grapes. The kinds principally cultivated are the black Hamburg, golden Chasselas, Muscat of Alexandria, and white Frontignac. In one of the houses, 40 feet long, which we visited the first week in August, we found at least 250 lbs. of the white Frontignac, and other varieties in great perfection, and in another house 85 feet long, about 500 lbs. chiefly of the black Hamburg. The clusters were unusually large, and the fruit as delicious as any we ever tasted of these kinds. At this time they were worth from 38 to 50 cents per pound in the New York market, which no doubt pays the expenses of cultivation. Mr. Halsey trains his vines under the rafters only—never up the walls, and the grapes begin to ripen as early as the last of July, without artificial heat. We have no doubt that cheap glass ranges may be so constructed as to grow this delicious fruit profitably for the city market. We noticed one black Hamburg vine here with sixty-five large bunches on it, and the grapes forming them of unusual size and flavor.

Figs.—These are grown to considerable extent here under glass, and ripen early in July without forcing. The black Smyrna bears the most delicious fruit, and the black Brunswick the greatest quantity. The white Genoa proves a good variety. Figs are successfully grown here in the open air, trained against walls; but they are not always certain to ripen well.

Nectarines and Apricots.—We found Mr. H. in the practice of a good method of growing nectarines. It is done by setting the trees in tubs of about two and a half feet diameter, by about two feet deep, filled with rich mould. The trees are dwarfs, trimmed, and kept in the conservatory without artificial heat all winter. As the weather becomes warm in the spring these tubs are set out every genial day in the open air, and put back under glass at night; and as soon as danger from frost is over, they are kept out in the open air entirely. They thus acquire a superior flavor to those usually grown under glass, and ripen nearly as early. A single tree three years from grafting, and only three feet high, produced the present season 150 nectarines. Trained to the side of the high brick wall, which encloses one part of the garden, we found apricots and nectarines. The fruit was delicious, and proves that it is entirely unnecessary to resort to glass to grow either of them in great perfection. Indeed, we think glass for them in this climate is a useless expense, for such as are produced under it are more or less watery and cold. Nor is it necessary to force them in our climate, as we can have, from the time of strawberries in June, through the whole summer and fall, a delicious succession of fruits, ripening in the open air, which keeps up a constant variety, superseding the necessity of forcing things in our temperate climate.

Poultry.—Mr. Halsey has one of the neatest and most convenient poultry-houses we know. But this having been figured and described in the January number of our third volume, we need say no more about it. He is quite an amateur of poultry, of which he keeps a great variety. Among the curiosities here we found two kinds of Mexican pheasants. The one is of jet black plumage, with yellow bills and legs, and nearly as large as turkeys; the other is smaller in size, and more light and graceful in form, with pink legs and bills, and most beautiful plumage, variegated like the English cock pheasant. Their shape is something like the English pheasant, though twice their size.

Stock.—Of course one would not look for much stock on such a place as this. Nevertheless, Mr. Halsey has his fancies, and among the animals we most admired were some fine grade Durham cows, which are excellent milkers. We also noticed here a pure white breed of pigs, descended from an importation from England, made about three years since. These are Chinese in their forms, very fine in all their points—thrifty, hardy, and of good size. Mr. H. has had spring pigs of this breed that weighed well fatted at Christmas from 250 to 300 lbs.

All the out-buildings of Mr. Halsey's villa are neat and commodious. The mansion is of dark freestone, roomy, and of a pleasing style of architecture. We know few places more desirable for a residence, and every time we visit it we find something new to admire there and in the charming country around.

THE STABLE.

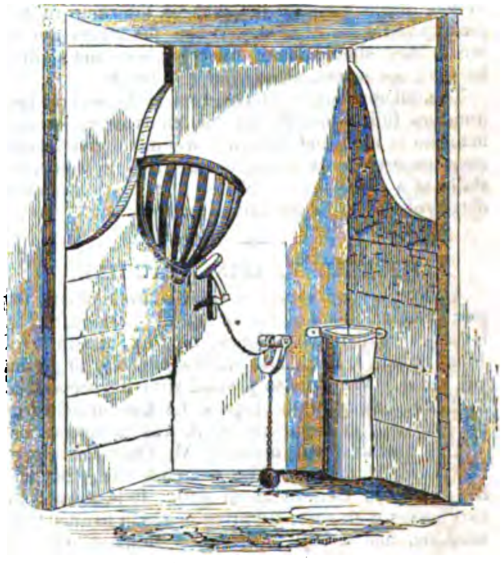
Mangers.—In America mangers are universally made of wood; in Great Britain of wood, stone, and cast iron. To each there are objections that are controlling, and in reference to stone they are perhaps insuperable. Those of wood, though cheap, require constant repairs; those of iron are dear, yet last for ever. In addition to the expense of stone, the manger itself is cumbersome and unwieldy. Stone may then be deemed of no value, and our remarks will be confined to iron and wood. The cheapness of wood will possibly determine of what the manger shall be constructed, and on that account it may be thought useless to write of the good qualities of iron for mangers. In our large cities, and at gentlemen's country seats, expensive stables are not unfrequently built, and the aim is, regardless of cost, to make the stable complete. In such the iron manger might well be used, and ultimately it would be cheaper than the one of wood.

The excellences of iron mangers are their durability and their cleanliness. Once erected they cost nothing for repairs. They imbibe no moisture, and therefore never become musty, and if food be suffered to lie and must in them, they instantly become sweet when the musty food is removed and they are washed. When in use, though constantly wet, they do not rust; and when not in use, they are never wet, and so cannot rust. They do not wear away with use, and cannot be chewed by the horse.

On the other hand, wooden mangers possess no one of these qualities. They imbibe moisture and retain it. They become foul frequently when in use even with dry food; and if *boiled* food be given in them they never are sweet. Mangers when out of use will become filled with filth. If of wood, they become tainted with the odors of the filth, and these odors are retained by the porous nature of the wood. The food, however fresh it may be, is rendered disgusting when put into them, and the horse feeds reluctantly, or not at all. Idle horses must employ themselves in some way, and they find a pleasure in the only employment left them, viz., to chew the manger. When once the habit of eating the manger is established, the horse may and often does become a confirmed crib-biter, or wind-sucker. In this condition he is unsound, and his value seriously impaired. If a wooden manger is to be secured against the teeth of the horse, it must be well protected by iron coverings; and then it is perhaps as expensive as one of iron, and yet not so sweet and clean.

In short, if expense be not regarded, iron should always be used for mangers; and where wood is used, the utmost care should be taken to keep them clean and sweet. This is due to the horse from mere humanity, if not interest. If we have work from the horse, he should have good food from us; and if he do not have it, we cannot have the work. The horse not only requires to have good food, but he requires it to be clean and served in a clean manner. If sick or delicate, however nice his food may be, he will not eat it from a disgusting manger. If well and hearty he will not eat so freely, and his vigor will not be so easily maintained.

It is usual to make the manger of the same width as the stall. This, however, is not necessary, and should not be if the stalls be not full long. If the manger occupy the whole of the end of the stall, the length of the stall is diminished by the width of the manger, and if it do not go to the floor, the horse will get his head below it, and be injured perhaps by violent blows, have poll-evil induced; or he may in pawing bruise his legs and lame himself. If the manger go to the floor, space is lost. Perhaps in no case should the manger fill the whole width of the stall.



A Manger.—Fig 67.

Our cut this week shows a manger occupying only one corner of the stall. This answers all the purposes of a large manger, and is free from its objections. It leaves all the stall to the horse, that he can use, and he cannot be injured by it.

Mangers should be about three-and-a-half feet high. It has been said that mangers should be low, as nature designed the horse to eat from the ground. The natural position of the head of the horse when standing is on a level with the body. It requires exertion and some labor to feed from the ground, none from a manger three or four feet high. Whatever nature designed, the horse should indicate it. He will never take his food from the ground when he can at the same time get it on a level with his mouth, standing naturally. If the manger be low, the horse will get into and frequently ruin it, and as frequently injure himself. It should, however, not be too high, as he will feed with difficulty. A medium is three-and-a-half feet, and for the most of horses, perhaps this is the best height.

The manger should have a depth of fifteen inches. If it be shallow, the horse will throw his food out in eating; and if two kinds be fed at the same time, he will waste it attempting to get that which is most palatable. If the manger be shallow it should have iron bars across the top, just wide enough apart to admit the horse's muzzle. By these the food will be saved from being wasted. It is, however, always better to have the manger deep.

Mangers should always be made very strong, especially when the horse is to be fastened to them. It is only necessary, however, to fasten the horse to the manger when it fills the whole width of the stall, and not even then if the head wall has any strength. The upper edge of the manger should be thick, and should be covered with tin or sheet iron, that the horse may not chew it.

Mangers and racks should always be made of hard wood, if wood be used; and the boards should be of a very good quality, without knots, cracks, or holes. Where iron is used for the manger, the rungs of the racks should be of iron. When the rungs are of wood, they should be of the very best, and should be split, not sawed, as less liable to break.

The different cuts we have given in the several last numbers fully illustrate all the kinds of racks and mangers in use; and we trust we have given sufficient general hints to enable any one to construct stalls of a proper kind. We shall take up the other details of stables in our future numbers.

HUSSEY'S REAPING MACHINE.

A FRIEND of ours being at Geneva, in this State, the past summer, heard of the successful operation of Mr. Hussey's reaper at Oaklands, near by, the farm of John Delafield, Esq., and had the curiosity to go out and see it. We were so pleased with his account of it, that agreeably to our request he has furnished us the following memorandum of it, and its operations.

This machine was made by Mr. Obed Hussey, of Baltimore, Maryland. The first cost was $100, and the freight to Geneva about $10. It is worked by two horses with ease, requiring one man to attend the machine, and a boy to drive. I think it will cut twenty acres per day, or more, though Mr. Delafield has not exceeded seventeen acres as he did not work the reaper more than nine hours any one day. The advantages derived from its use are, the expedition of harvesting the crops, the small number of men necessary to employ, and the clean and even surface in which stubble is left. The straw also is gathered in better condition, which is a matter of some consideration. That the economy of the machine may be better understood, the following statement is subjoined of harvesting Mr. Delafield's wheat crop of 104 acres. The reaping machine cut the whole in eight days, equal to an average of thirteen acres per day. He estimates the cost as follows:—

1 Man and team - -	$1 50	
1 Boy to drive, - -	50	
	$2 00 per day,	
which for 8 days is - - -		$16 00
Add interest on cost of the machine 1 year		7 00
Cost of cutting 104 acres of wheat by machine, - - - - -		$23 00

If the same had been cradled, and supposing the average quantity per man, per day, to be about two acres, it would require six cradles to cut 104 acres in eight days. At 13 acres per day the cost of six cradles, including board and lodging, at $1 50 per day, is $72. This shows a gain of $49 in favor of the machine. If, however, farmers employ men who day after day can cradle more than two acres per day, the estimate can readily be made in accordance with the greater manual power. It would seem that the usual quantity may be assumed at two acres per day for continued labor. In addition, we may estimate that six cradles would require nine rakers and binders; whereas the machine thus far has required but seven followers, making a saving of two men at $1 each, is $2 per day, which for eight days gives $16 in favor of the machine. If these calculations are correct, it will be perceived that Mr. D. saved $65 in harvesting his wheat crop alone.

Since the in-gathering of the wheat, we understand he has used the machine for cutting oats and flax. The farmers for many miles around Geneva came to examine the machine while at work, and were all surprised at the rapidity and neatness of its execution; but above all, the facility with which it cuts the lodged grain, leaving nothing in the fields to be gleaned, which is another great advantage in its use. To conclude, Mr. D. thinks the inventor, Mr. Hussey, is entitled to high credit for his ingenious machine. It is simple, strongly made, and effective.

NEW YORK FARMERS' CLUB.

AT the meeting Sept. 2d, some desultory conversation first took place on the subject of the rot in potatoes, from which we gathered nothing new. The best preparation for a wheat crop was then taken up.

Mr. Townsend, of Astoria, said he plowed twice and harrowed four times, a quarter of an acre, for wheat. That piece gave upwards of seven bushels this year, equal to almost thirty bushels per acre.

Mr. Selleck—Was not lime used on the farm?

Mr. Starr—I have known one plowing do as well—but it was on rich soil.

Mr. Townsend—Two years ago I had a field in which I had grown corn—cut off the stalks—leaving the stumps in the fields; this field I plowed—splitting the hills, I harrowed it well—so that the field presented a good surface, all alike—I sowed oats—the appearance of this crop was singular—it looked like rows of gingerbread—those on the rows of hills good—those between the old rows poor—little grain in them. I lost about one-half of my crop that year.

Mr. Bloomfield—Where clover has been grown, it is remarked that its tap root loosens the soil deep, and that undoubtedly adds much to the growth of the wheat planted upon the field. I agree to the doctrine of deep plowing.

Chairman—Clover is highly beneficial from that cause; the tap root loosens the ground.

Mr. Bloomfield—Those of our farmers who have gone to Virginia farms, are proving effectually by their deep plowing, &c., what ought to be done, and what had not been done there before. They plow deep and sow clover. The results are excellent.

At the second meeting, Sept. 16th, the best method of cultivating flax was discussed, but no definite results arrived at. A letter was next read from Dr. Underhill on the Culture of Wheat. An apple was presented by Mr. McKeyes, of Hamilton, C. W., weighing 19 ounces, and measuring 14 inches in circumference. Specimens of wild rice were shown by Mr. Meriam. Capt. Post, of Deep River, Conn., sent a sample of wild oats. Mr. Graham, of this city, presented Isabella grapes of a superior quality, which ripened on the 9th September.

Multicole Rye. — A fine sample of this was shown to the club. The person who grew it stated that the seed was sown about the tenth of June—it was mowed for grass in the latter end of November. The stalks were about five feet high, and the heads averaged four inches in length when gathered on the same day as his field rye. When cut for grass it was fully ten inches long. It is neither so soft, so large, nor so farinaceous, as the ordinary rye, at least compared with my own field crop. Yesterday, I met the late Vice President of our Senate, and the treasurer of our State, both practical farmers, to whom I mentioned this rye and its uses.

FIFTH ANNUAL SHOW
OF THE
NEW YORK STATE AGRICULTURAL SOCIETY.

THIS was held at Utica on the 16th, 17th, and 18th of last month, and it is generally conceded that the largest concourse of people was present there than at any preceding show—25 to 30,000, probably, being on the ground on the 17th, and not less than 40 to 45,000 different persons visiting it in the course of the three days. The majority of these were, the real farmers, with their families; and we could observe a more general and heartfelt interest in the exhibition, pervading those present, than has seemed heretofore to characterize such assemblies. Nearly all doubt now is removed from the minds of intelligent farmers respecting the utility of an annual cattle show and fair, and we have reason to believe that it will continue to grow in popularity with the New York agricultural community. Indeed, we hope to live to see the day when one hundred thousand persons will be present at an exhibition of this kind. A rain which fell a few days previous to the show completely laid the dust, and the weather was cool and delightful till about 5 o'clock of the last day, when a smart shower came up to the discomfort of a few, and obliging the members of the society to adjourn from the open air to one of the business rooms, to finish reading the reports of the several committees.

Show Ground.—This was in the suburbs of the city, about a mile from the railroad depôt, on Genesee street. The spot was well chosen for a show ground, being a compact turf, on a dry and slightly rolling surface, commanding a delightful view of the town and country for some distance around. An area, nearly square, of ten acres, was enclosed by a high tight board fence. At a suitable distance from this a railing was put up all around, which formed the carriage drive. Within this railing the cattle for exhibition were tied, and the sheep and pig pens were arranged. About the centre of the front fence a suitable business office was erected for the accommodation of the officers of the society, and within the enclosure tents were pitched for the various committees. Wednesday, the 17th, at an early hour, the gates to the show ground were thrown open, when the broad area to which they led was soon filled with a dense mass of people on foot, on horseback, and in vehicles of different kinds. The first object that attracted attention on entering, was a beautiful open octagonal temple, 15 feet high, wreathed with evergreens and flowers. It was designed by T. R. Walker, a member of the Floral Committee. Next were four buildings 30 feet by 100 feet each, and of sufficient height. The first of these was Floral Hall, for the display of flowers, fruits, and vegetables; the second, the Ladies' Hall, devoted to domestic fabrics; the third, Mechanics' Hall, for implements; and the fourth, the Farmers' Hall, for flour, grain, butter, cheese, &c. All these buildings were well arranged for the purposes designed. The Floral Hall was particularly attractive; for in addition to the show of nature's most beautiful productions, a pretty Egyptian temple, dedicated to Ceres, graced the front just after entering—half-way down rose a Gothic temple, for the worship of Pomona, and near the extreme end we found a third temple, in the Corinthian order, sacred to Flora. Too much credit cannot be awarded to the fair ladies under whose supervision this hall was made so attractive.

Trial of Plows.—Tuesday, the 16th, was devoted to the trial of plows; and the gathering together of the stock, agricultural implements, and other things, for the next day's exhibition.

Horses.—We have never seen so select a show of stallions in the United States. The match and single horses were generally very good. The breeding mares were a pretty fair lot, though not near equal to the horses. Joel B. Nott, showed a superb thorough-bred mare, by Eclipse, out of Youug Romp.

Cattle.—The exhibition of Durhams was meagre enough in comparison with all other shows, save the first of the society at Syracuse. This was owing to there being few breeders of Short-Horns in the vicinity of Utica. Of Devons there was a much better display, and Messrs. Washburn, Beck, and Garbutt, did themselves great credit. Mr. Sotham had a superb lot of Herefords, and Mr. Bement and others, some Ayrshires. Native and grade milch cows were abundant, and of great excellence. The superb fat Durham ox of E. P. Prentice, of Albany, and the grade Durham cow of C. Booram & Co., of Buffalo, aud several other animals, attracted much attention. The cow was nearly perfect, and would weigh 2,000 lbs. The working oxen were a fine lot, and principally of a beautiful red color, showing a high cross of the Devon.

Sheep.—Nothing like so large an exhibition has ever been made of the woolly tribe, particularly in Merinos and Saxons.

Swine.—Of these there was a goodly show of Berkshires, Leicesters, and the beautiful white Suffolks, belonging to Mr. Stickney, of Massachusetts. We shall now know where to fill orders for our friends.

Poultry.—The feathered bipeds appeared here in considerable force and variety, and the exhibition was superior to anything ever before made.

Farm Implements.—We noticed a greater variety present than at Po'keepsie; but it was not what it should be in New York. Among the new things most worthy of note, were a stump extractor, Hussey's reaping machine, Pitt's corn and cob crusher, a superb lot of plows from Ruggles, Nourse & Mason, of Worcester, and a steam dairy operator for cheese, holding 150 gallons of milk.

Dairy Products.—This was a superb display, principally from the county of Herkimer. We counted 131 specimens of cheese of a superior quality—some of them weighing 240 lbs. or more, each. Of butter there were 29 specimens, most of which were very nice. Mrs. H. Rhodes, of Trenton, made a no less curious than beautiful display of butter, in the forms of fish, birds, their nests and eggs, melons, corn, and a variety of other things.

Vegetables and Seeds.—Considering the season the assortment of these was quite respectable. Among the principal exhibitors were David Gray, Jr., of Utica, the State Lunatic Asylum, and C. F. Crossman, of Rochester.

Fruit.—The show in this department was confined almost entirely to Western New York, and taking this into consideration, it was a better one much than we anticipated. N. Goodsell, of Greece, had 300 kinds of apples; David Thomas, of Cayuga, 39 varieties of pears, and 52 of apples; Ellwanger and Barry, and Russell and Hooker, of Rochester, each had a fine assortment of fruit.

Flowers.—The unexampled drouth made this rather a meagre show in comparison with that of the past year. However, thanks to the ladies and a few spirited gentlemen, some beautiful varieties of flowers were there to grace the hall.

Domestic Fabrics.—Here the manufacturers of Utica and its neighborhood, and the ladies with their quilts and fancy needlework, gave a rich variety, which attracted no little attention.

Plowing Match.—This came off on the Whitestown road, a short distance out of Utica. The task was one quarter of an acre, and two hours the time allowed to perform it. Twenty-one teams, of one pair of horses each, started. The quickest performance was in 65 minutes. The work was all admirably done. Mr. Smith's plowman, Jackson, who won the first prize, could scarcely be excelled, and all the premium plowing was of the highest order. E. W. Butler, a lad 16 years old, did his work on an average with the others. He was the only one in the boy's class, and was awarded a premium of $10.

The Address.—On the last day, Thursday, at 3 o'clock, P. M., Josiah Quincy, jr., Esq., of Massachusetts, delivered the address on the show ground. He was surrounded by a large auditory, and acquitted himself to universal admiration. Indeed, we cannot speak too highly of his beautiful oration. The thoughts were noble and appropriate, and the style chaste and classic. It was delivered with great ease, and animation, and we hope to be able to present the address to our readers next month; they will then have an opportunity of judging for themselves of its highly attractive merits. Immediately after the address of Mr. Quincy, the chairmen of the several committees made their reports in succession.

Amount of Money Received.—The receipts for membership and tickets were about $1,400, which is $700 more than was received last year. The citizens of Utica were at the expense of fitting up the show ground, which must have cost about $1,500. But this, we think, was paid back several times over, by the large concourse of people present spending their money freely among them.

Business Transactions.—From all that we can learn, sales of stock, implements, &c., were made to a much greater amount than ever before at one of these exhibitions. These are likely to increase from year to year, and after the show is over, there will ultimately be an extensive fair. We do not know so good a place to purchase stock as at one of these meetings, and we would call the attention of farmers throughout the country to this fact, and invite them to be present, not only as a matter of curiosity, but of business. Among the stock transactions, we hear that Mr. Vail, of Troy, sold his fine young Short-horn bull, Symmetry, to Col. J. M. Sherwood, of Auburn, for $300, which is a large price as times go. He is undoubtedly one of the best animals in the state.

Quite a number of strangers were present, among whom we recognized Mr. Burke, U. S. Commissioner of Patents (who came on purpose to gather materials for his forthcoming agricultural report); Mr. Ballard of Washington, D. C.; Mr. Gilmour of Baltimore; John G. Mallock Esq. of C. W.; Mr. Edmunson of the British American Cultivator, and several other Canadian gentlemen whose names have escaped us; Messrs Affeleck & Metcalf of Mississippi; Dr. Holmes of the Maine Farmer; Judge Smith, and Messrs. Blakesley and Atwood of Connecticut; Dr. R R Reed of Penn., and Mr. Felder, of South Carolina.

Everything went off very harmoniously, and it seemed a happy, and we trust an improving meeting of the farmers. Gov. Wright, and many of our most distinguished citizens were present, seemingly highly pleased with the show. The Committees on the part of the citizens of Utica, deserve high praise for their admirable arrangements throughout the whole affair. There were several things got up for the entertainment of the people; such as the Magnetic Telegraph, the Circus, a Juvenile Concert, a Concert at the City Hall, and a splendid ball on Thursday evening, for the gratification of the younger part. The Mayor of the city gave a soirée which was well attended, while the citizens of Utica vied with each other in their attention to strangers.

The numerous Hotels in Utica did their best to accommodate the public; but after stowing as thick as in a camp, many of the late comers had to look for private lodgings. For our own part, we got well quartered at Baggs's magnificent hotel. Here we found all the luxuries of the season, and a most obliging and attentive landlord in Mr. Churchill. We recommend this house to travellers, as it is the most convenient to the rail-road depot, and one of the best kept on the northern route from New York. We can also speak highly of the Delavan Temperance House at Albany. It is a palace of a house, and kept in the neatest and most comfortable manner. The several rail-road companies transported stock and all other implements to and from the show gratis, and passengers they carried at half price, which was really very liberal on their part.

PREMIUMS.

CATTLE.

Class I. *Durhams.*

Bulls.—1st premium, E. P. Prentice, Mt. Hope, for his bull O'Connel, $15 : 2d, J. M. Sherwood, Auburn, for his bull Arrow, $10 ; 3d, Geo Vail, Troy, for his bull Symmetry, Diploma. Mr. Crosby's Osceola, the bull Young Echo, Mr. Talcott's Cortez, Mr. Doolittle's Mohawk Chief, specially, commended.

Bulls 2 years old.—1st premium, Bell & Morris, Westchester, for their bull Marius $10. No other animals offered in this class deemed worthy of a premium.

Yearling Bulls.—1st, W. W. Ballard, Southport, Chemung co., for his Bull Victor, $10; 2d, Geo. Brinkerhoff, Albany co., for his bull Peter Parley, Col. Tour ; 3d, Horado N· Cary, Marcy, Oregon, Diploma.

Bull Calves.—1st, Z. B. Wakeman, Herkimer, Meteor, Col. Tour ; 2d, Bell & Morris, Westchester, Prince, Diploma.

Cows.—1st, J. M. Sherwood, Anburn, for his cow Philopenn, $15 ; 2d, Bell & Morris, Westchester co., Victoria, $10 ; 3d, R. C Nicholas Geneva, Flora, Diploma.

Heifers 2 years old.—1st, J. M. Sherwood, Auburn, for his heifer Sybil $10 ; 3d, H. N Cary, Marcy, heifer Lilly Diploma.

Yearling Heifers.—1st, H. N. Cary, Marcy, for his heifer Rose, $10.

Heifer Calves.—1st, Z. B. Wakeman, calf Sylvia, Col. Tour ; 2d, J. M. Sherwood, Auburn, calf Dahlia, Diploma.

Class II. *Herefords.*

Bulls.—1st, Erastus Corning, Albany, bull Sir George, $15.

Young Bulls.—1st, T. H. Hyatt, Rochester, bull DonQuixotte, $10.

Cows.—1st, Erastus Corning, Albany, cow Aston Beauty, $15 ; 2d, Erastus Corning, cow Mary, $10.

Heifers.—1st, T. H. Hyatt, Rochester, heifer Emma, $10.

Class III. *Devons.*

Bulls.—1st, H. N. Washburn, Otsego co. bull Young Baltimore, $15 ; 2d, E. P. Beck, Wyoming co, bull W. Wallace, $10.

Young Bulls.—1st, B. P. Johnson, Oneida co., bull Ivanhoe, two years old, $10 ; 2d, E. P. Beck, Wyoming co., bull Criterion, one year old, diploma.

Cows.—1st, E. P. Beck, Wyoming co., cow Victoria, $15; 2d, H. N. Washburn, Otsego co., cow Baltimore, $10.

Heifers.—1st, H. N. Washburn, Otsego co., heifer Utica, $10 2d, E. P. Beck, Wyoming co., heifer Flora, diploma; H. N. Washburn, Otsego co., for his Devon calves, diploma.

Class IV. *Ayrshires.*

Bulls.—1st, C. N. Bement, Albany, bull Sheltie, $15.

Young Bulls.—1st, C. N. Bement, Albany, bull Kenwood, $10.

Cows.—1st, C. N. Bement, Albany, cow Alice, $15.

Heifers.—1st, C. N. Bement, Albany, heifer Fairy, $10

Class V. *Grade Cattle.*

Cows.—1st, Dolphus Skinner, Utica, $15 ; 2d, H. N. Cary, Marcy, $10 ; 3d, F. Ingersoll, Vernon, Vol. Trans.

Heifers 2 years old.—1st, H. W. Doolittle, Herkimer, $15 ; 2d, H. Crocker, Utica, $10; 3d, J. B. Nott, Guilderland, Vol. Trans.

Yearling Heifers.—1st, H. W. Doolittle, Herkimer, $5 ; 2d, A. J. Bell, Westmoreland, Col Tour. ; H. W. Doolittle, Herkimer, Vol. Trans.

Heifer Calves.—1st, Andrew McBride, Marshall Col. Tour.

Class VI. *Native Cattle.*

Cows.—1st, H. H. Eastman, Marshall, $15 ; 2d, F. D. Grosvenor, Utica, $10 ; 3d, Henry Waters, Earlville, Vol. Trans.

Heifers 2 years old.—1st, H. H. Eastman, $15 ; 2d, W. L. Mould, Paris, $10 ; 3d, E. F. Head, Kirkland, $5.

Yearling Heifers.—1st, A. J. Bell, $5.

Best heifer calf, G. W. Drew, Kirkland, Col. Tour

MISCELLANEOUS.

Bulls.—1st, Horace Putnam, Rome, bull Bolivar, Col. Tour. ; 2d, Philander Budlong, Oneida co., Col. Tour. ; 3d, Luther Smith, Otsego, Vol. Tr. ; 4th, S. M. Foster, N. Hartford, Vol. Tr.

Best bull calf, Geo. Geertner, Canajoharie, diploma.

WORKING OXEN.

For best 10 yoke, J. S. & W. Wadsworth, Geneseo, $20 ; 2d do., Russel Blackstone and others, New Hartford, $10 ; best yoke, Abram Hurd, Norway, $15 ; 2d, J. S & W. Wadsworth, Geneseo, $10 ; 3d, Luther Comstock, Kirkland, $8 ; 4th, H N. Cary, Marcy, $6 ; 5th, E. Sheldon, Cayuga co., $5 ; 6th, Austin D. Neal, N. Hartford, $4 ; 7th, S. B. Rhodes, Paris, N. Hartford, Vol. Trans.

STEERS.

Three years old—Best yoke Hiram Gridley, Kirkland, $15 ; 2d, J. S. and Wm. Wadsworth, Geneseo, $10 ; 3d, R. Blackstone North Hartford, diploma.

Two years old—Best yoke, M. L. Butler, North Hartford, $10 ; 2d, S. Scovill, Marshall, Colman's Tour ; 3d, B. T. Case, Bristol, diploma.

Yearlings.—Best yoke, S. W Gunn, Kirkland, $8.

FAT CATTLE.

Best pair, Charles Godfrey, Geneva, $15 ; 2d, James Callighan, North Scotland, 10 : 3d, C. Boorom & Co. Buffalo, Col, Tour.

Single Ox or Steer.—1st, Hugh Crocker, Utica, $10 ; 2d, E. P. Prentice, Albany, $5.

Cow or Heifer.—1st, C. Boorom & Co. Buffalo, $10 ; 2d, E. Corning, Albany, Gay, $5 ; 3d, do. do. Matchless, Vol. Tr.

FAT SHEEP.

1st, John Reeves, Lysander, $10 : 2d, J. M. D. M'Intyre, Albany, Col. Tour. ; 3d, Geo. Brinckerhoff, Albany, Vol. Tr.

STALLIONS.

Thorough Bred.—1st, C. T. Albot Stokes, Oneida co., Consternation, $20 : 2d, N. S. Hungerford, Oneida co., Sir Henry, $10 ; 3d, C. F. Crosby, Watervleit, Florizell, Vol. Tr. ; 4th, T. J. Thompson, Otsego co., Sir Charles, diploma.

Horse of all work.—1st, Stephen Fancher, Onondaga co., Young Eclipse, $20 ; 2d, William Ferguson, Oneida co., bay, Kentucky Hunter, $10 ; 3d, T. D. Moody, St. Lawrence co., bay, Blucher, Vol. Tr ; 4th, E. Merriam, Lewis co., black, Blucher, dip.

Draught Stallions.—Erastus Corning, Albany, certificate for his horse Sampson, as the best horse in his class, having received a premium in the same class last year.

1st, John Van Hoesin, Oneida co., for his horse Patriot, $20 ; 2d, G. Warren, Onon. co., Dragon, $10 ; 3d, Benj. Petit, Oneida co., Honest Tom, dip.

Stallions 3 years odl.—1st, Luke Coan, Oneida, co., Black Messenger, $15 ; 2d, John M. Tiffany, Chenango co., Young Godolphin, $10.

Discretionary Premiums.—Isaac Fairchild, Onon. co., Beppo, Col. Tour. ; Matthew Clark, Oneida co., Sir Roderick, Vol. Tr. : Geo. B. Rowe, Madison co., Young Sir Charles, dip.

MATCHED HORSES AND GELDINGS.

Matched Horses.—1st, Ardon Merrill, Rome, grey horses, $10 : 2d, J. Butterfield & Co., Utica, black horses, 2 vol. Tr. ; 3d, Lewis Joy, Trenton, dip.

A diploma and volume of Trans. for 1845 to Welch and Mann, for five pairs cream colored matched horses.

GELDINGS.

1st, J. Butterfield & Co., Utica, bay gelding, $10 ; 2d, Abraham Soles, Schenectady, br. horse, Vol. Trans. ; 3d G. W. Gardner, Utica, chestnut horse, dip.

Discretionary.—J. Lennebacker, Utica, dip.

MARES AND COLTS.

1st, George Fordon, Geneva, $20 ; 2d, Joel B. Nott, Albany, for his mare Jodine, and colt Effingham, $10 ; 3d, A. Close, Paris, diploma.

Mares 3 years old.—1st, Isaac Fairchild Fabius, for his black mare Fanny Gray, $10 ; 2d, Wm. C. Burrett, Paris, Vol. Tr.

Mares 2 years old.—1st, Geo. Fordon, Geneva, dip. ; 2d, Isaac Fairchild, Fabius, Vol. Tr.

Diicretionary.—Roswell Morgan, for pair of Arabian colts, Vol. Tr. ; Joel B. Nott, a yearling colt, Chlorine, Vol. Tr.

Mules.—Josiah Cloyes, Morrisville, for one pair of mules, Vol. Tr.

SHEEP.

Class I.—Long Wooled.

Bucks—Best buck, J. M. D. McIntyre, Albany, Cotswold buck, $10 ; 2d best, Wm. Huxford, Oneida, Bakewell do., Col. Tour. ; 3d best, W. Rathbone, Otsego, Dishley, dip.

Ewes.—Best five ewyes J. J. Boshart, Mohawk, $10 ; 2d best, Wm. Rathbone Otsego Col. Tour.

Lambs.—Best five lambs. Premium equally divided between Geo. Brinckerhoof, Albany, and Thomas Hollis, Otsego, $5.

Class II.—Middle Wooled.

Bucks.—Best buck, J. M. D. McIntyre, Albany, $10 ; 2d, Fred. Easton, Mt. Morris, Col. Tour. - 3d, Z. B. Wakeman, Herkimer, diploma.

Ewes.—Best five, J. D. McIntyre, Albany, $10 ; 2d, J. M. Sherwood, Auburn, Col. Tour. ; 3d, Z. B. Wakeman, dip.

Lambs.—Best five, J. D. McIntyre, Albany, $5.

Class III. *Merinoes and their grades.*

Bucks.—Best buck, H. & J. Carpenter, Poughkeepsie, $10 ; 2d, J. M. Sherwood, Auburn, Col. Tour. ; 3d, Reed Barrett, Tompkins co., dip.

Ewes.—Best five, J. M. Sherwood, Auburn, $10 ; 2d, Israel Smith, De Ruyter, Col. Tour.

Lambs.—Best five, J. M. Sherwood, Auburn, $5.

Class IV. *Saxons and their grades.*

Best buck, S. B. Crocker, Vernon, $10 ; 2d, S. H. Church, do., Col. Tour. ; 3 d, J. R. Jones do., dip. ; best five ewes, S. H. Church, do., $10 ; 2d, S. B. Crocker, do, Col Tour. ; 3d, D. C. Barnes, Deerfield, Oneida co, dip. : best five lambs, L. T. Marshall, Vernon, Oneida co., $5.

Sheep from other States.—Diplomas to J. H. Nettleton, I. H. Blakesley, N B Smith and Stephen Atwood, all of Litchfield co., Conn., for superior Merino Sheep

SWINE.

Boars.—1st, C R Nichols, Darien, Leicester breed, $10; 2d, J M Sherwood, Auburn, Berkshire, Col. Tour.; 3d, L T Marshall, Vernon, dip.

Sows.—1st, J J Boshart, Mohawk, Berkshire and Leicester, $10; 2d, Robert Eells, Westmoreland, grade Berkshire, Col. Tour.; 3d, Peter Smith, Utica, dip.

Pigs.—1st, Robert Eells, Westmoreland, Col. Tour.; 2d, James Plant, diploma.

POULTRY.

Best lot Dorking Fowls, L Tucker, Albany, $3; best do. Black Polands, Geo Bement, Albany, $3, best pair of Ducks, (Muscovies) G Bement, Albany, $3; best do. Turkeys, (wild) L Tucker, Albany, $3; best do. Geese, (African) G Bement, Alb., $3; best and greatest variety of Fowls, L Tucker, Alb., $10.

PLOWS.

1st, Howard Delano, Mottville, Onondaga co., Diamond, improved, $15: Tho's D Burrell, Geneva, Shell Wheel, (premium last year) certificate; Brainard & Comstock, Rome, Diamond, No. 5, (premium last year) certificate; E Wilson, Vernon, Diamond, No. 5, (prem. last year) certificate; 2d, Miner, Horton & Co., Peekskill, No. 22, silver medal; 3d, John B Gaylord, Auburn, No. 6, dip.; Alvah Jefferson, Darien, Michigan Subsoil, $10.

FARM IMPLEMENTS.

Farm Wagons.—Best, Peter S Eastman, New Hartford, $10; 2d, J S & M Peckham, Utica, Vol. Tr.

Harrows.—Best, Oren Barton, Tyler, Onon. co., (Geddes Harrow) Col. Tour.

Scarifier.—Oren Barton, Tyler, Onon. co., $5.

Cultivator.—Best, Oron Barton, Tyler, Onon. co., Col. Tour.

Fanning Mills.—Best, J T Grant & Co., Schagticoke Junction, silver medal; 2d, Clow & Trulon, Mentz, Vol. Tr,; 3d, J Patterson, Canandaigua, dip.

Horse Power—Best, A D Childs, Rochester, $10.

Threshing Machine—Best, A Douglass, Skaneateles, $10: 2d, Hart, Higham & Co., Vulcan Works, Utica, Vol. Tr.: 3d, Ellery Hicks, dip.

Drill Barrow.—Best, Abm. Randall, Oneida co., to plant potatoes and corn, Col. Tour.

Straw Cutter.—Best, J. G. Case, Utica, Sanford's, silv. medal; 2d, J C Rich, Penfield, Vol. Trans.; 3d, Martin Sanders, Cortland, diploma.

FARMING IMPLEMENTS.

Best corn and cob Crusher, J A Fitch, Rochester, $10.

Best farm horse cart, Wm Caroll, Albany, Col Tr

Best revolving horse-rake, James Smith, Clarkson, Monroe co., Col. Tour.; 2d do., Albert Brockway, Bridgewater, Vol. Tr.

Best ox yoke, A Munroe, Galway, Col. Tour.; 2d do., Wm. Hill, Marcy, Vol. Tr.

Best grain cradle, E S Hagar, Frankfort, $3; 2d do., David Flanders, Stockholm, diploma

Best hay fork, Taylor, Buttolph & Co., diploma.

Best grass scythe, H C White, Albion, diploma.

Best hoe, R & E Clark, & Co., Unadilla Forks, $2

Best corn sheller, J D Briggs, Saratoga, diploma.

Best corn cutter, J M Cleveland, Adams, Jefferson co., $2.

Manure forks, Taylor Buttolph, & Co., Stockholm, diploma.

O Hussey, Baltimore, reaping machine, $10.

PLOWING MATCH. 20 ENTRIES.

1st, Fred. Smith, Westmoreland, $15, plowman Wm. Jackson, diamond plow, Brainard, Comstock & Co., makers; 2d, Elon Comstock, Rome, $12, Stephen Pope plowman, same plow as No. 1; 3d, Thos. D Burrall, Geneva, $10, Burrall's plow; 4th, O R Babcock, Bridgewater, Col. Tour.; 5th, H N Carey, Marcy, Vol. Tr., W Mahew plowman, Livingston Co. plow.

Boys under 18 *years of age*—1st, E W Butler, Rome, 16 years of age, Darien plow, No. 5, $10.

BUTTER.

Best lot from 5 cows, E R Evans, Marcy, Oneida co., $25; 2d, best lot from 5 cows, Thos. Hawks, Columbia, $15; 3d best lot from 5 cows, Geo. Vail, Troy, $10.

Best 25 lbs. made in June, E S Ransome, Perryville, Madison co., $10; 2d best 25 lbs. made in June, O C Crocker, Union, Broome co., Col. Tour.; 3d best 25 lbs. made in June, P Case, New Hartford, Vol. Tr.

Best 50 lbs. made at any time, Melas Adams, Martinsburgh, Lewis co., $15; 2d best 50 lbs. made at any time, S M Foster, New Hartford, Oneida co., silver medal; 3d best 50 lb made at any time, O Cole, Litchfield, silv. med.; 4th best 50 lbs. made at any time, D Eells, jr., New Hartford, silv. med; 5th best 50 lbs. made at any time, W Otley, Oaks Corners, Ontario co., silver medal.

CHEESE.

On ten Dairies.—1st, H Burrall, Salisbury, Herkimer co., $20; 2d, J Dean, and others, Oneida Co., $10.

Another lot of the dairies presented by A L Fitch, of Litchfield, Herkimer co., were very superior, and had the committee been authorized to award two of the premiums to the same county, this lot would have received the second premium, silver medal.

Cheese over one year old.—1st premium, Robert Eells, Westmoreland, $15; 2d, Fred. Ingersol, Vernon, silver med.

Cheese less than one year old.—Best 100 lbs., W S Ford, Salisbury, $15; 2d best, W Ottley, Oaks Corners, silv. med.; 3d best, F Hallenbeck, Herkimer co., silv. med.; 4th best, N Wilcox, Winfield, silv. med.; 5th best, J. Smalley, Norway, silv. med.

More than 18,000 pounds of cheese exhibited in this class; every cheese was of superior quality.

Spencer Brown, of Newport, Herkimer co., for two samples of round or navy cheese, diploma.

MAPLE SUGAR.

1st, Joel Woodworth, Watertown, $15; 2d, Moses Eames, Rutland, $10; 3d, Wm E White, Walton, Col. Tour.; 4th, Erastus Biglow, Sangerfield, Oneida co., diploma; 5th, Sidney Spring, Eaton, Madison co., diploma.

SILK.

Best sewing, Clark Avery, Perryville, $15; 2d best sewing, D Irish, do., $10; 3d do. do., J Hutchinson, River Head, Col. Tour.; best lb. reeled silk, Mrs. Irish, Perryville, $10; 2d best do., Clark Avery, do., Col. Tour.; 3d do. do., Benjamin Blackman, Verona, diploma.

Cocoons.—Best, Clark Avery, Fenner, $10; 2d, John Osborn Utica, Col. Tour.; 3d, Benjamin Blackman, Verona, dip.

DOMESTIC MANUFACTURES.

Woollen Blankets.—1st, Geo W Henry, Martinsburgh, $5; 2d, Jacob S Van Allen, Black Rock, $4; 3d, Mrs V R Voorhies, Amsterdam, $3.

Flannel.—1st, Chester Buck, Lowville, Lewis co., $5; 2d, Geo W Henry, Martinsburgh, $4; 3d, Wm Ottley, Oaks Corners, Ontario co., $3.

Woollen Cloth.—1st, Samuel Churchhill, Little Falls, $5.

(No other specimens found by com. although two others entered on list.)

Woollen Carpets.—1st, Hiram Mills, Martinsburgh, $5; 2d, William Ottley, Oaks Corners, $4; 3d Mrs. V R Voorhies, Amsterdam, $3.

Brussels Carpets.—1st, Hotchkiss & Smith, Auburn, $5; 2d, Thompsonville Co., Conn., $3.

Rag Carpets.—1st, Mrs. Benjamin Blackman, Verona, Ont. co., $3; 2d, Mrs. Benj. Plant, New Hartford, $2; 3d, C Robinson, Clinton, $1.

Kersey.—1st, E M Bateman, Venice, Ont. co., $3; 2d, S W Abbott, $2; 3d, Geo W Henry, Martinsburgh, $1.

Double Carpet Coverlet.—1st, Miss Adeline Jones, Westmoreland, $4; 2d, John Winslow, Watertown, $3; 3d, Abraham Koonz, Albany, $2; 4th, Susan H Bronson, Vernon, $1.

Knit Woollen Stockings.—1st, Mrs. Achsah Coe, Columbia, $2; 2d, Hannah Bostwick, Lowville, $1; 3d, Chester Buck, dip.

Linen Cloth.—1st, Joseph Wells, Denmark, $5; 2d, Aaron Bailey, Cherry Valley, $4; 3d, Wm. Ottley, Oaks Corners, $3.

Linen Diaper.—1st, Mrs. Achsah Coe, Columbia, $5; 2d, Geo. W Henry, Martinsburgh, $4; 3d, Levi T Marshall, Vernon, $3.

Hearth Rugs.—1st, George B Cary, Richfield, $5; 2d, Mary Tunnecliff, Warren, Herkimer co., $4; 3d, George B Cary, Lichfield, $3; 4th, Miss Manahan, Utica, $2; 5th, Mrs. Peter Miller, Turin, Lewis co., $1; 6th, C Robinson, Clinton, co., dip.

Linen Sewing Thread.—1st, Peter Crispell, jr., Ulster co., 1 lb., $2.

Linen Knit Stockings.—1st, Mrs. Calvin Aldridge, N. Hartford, $2; 2d, Mrs. W C Burrett, Paris, $1; 3d, Mrs. Squire M Mason, N. Hartford, dip.

Silk Stockings.—1st, Mary E Dayton, Vernon, dip.; 2d, Mrs D Irish, Perryville, do.; 3d, Thomas Potter, Utica, do.

Cotton Stockings.—1st, Mrs. Morris, $2; 2d, Mrs. Sophia Willard, N. Hartford, $1; 3d, Mrs. D Skinner, Deerfield, dip.

TOW CLOTH.

1st, Mrs. William Potter, Marcy, Ohio, Oneida co., $1; 2d, Mrs. William Ottley, Oaks Corners, dip.

FRUITS.

Greatest variety of Table Apples, Ellwanger & Barry, Rochester, $5; 2d do. do. Table Apples, David Thomas, Cayuga co., $3; 3d do. do. Table Apples, J C Hastings, Kirkland, Vol. Tr.; best 12 sorts Table Apples, Oliver Phelps, Canandaigua, $3

Greatest variety of Table Pears, D Thomas, Cayuga, $3 2d do. do. Table Pears, Ellwanger & Barry, Rochester, Vol. Tr.

Greatest variety of Winter Pears, David Thomas, Cayuga co., Vol. Trans.

Best 12 Quinces, Oliver Phelps, Canandaigua, Vol. Trans.

Best 12 Peaches, N Goodsell, Greene, Monroe co., Vol. Tr

Best 24 Plums, Henry Greene, Utica, Vol. Tr.

Best 6 bunches native Grapes, W Mesvine, Utica, Vol. Tr.

Best 6 bunches foreign Grapes, S D Childs, Utica, Vol. Tr

FLOWERS.

Greatest variety and quantity, Fred. W Boyce, Utica, gold medal; 2d do do, Ellwanger & Barry, Rochester, $5; 3d do do, Mrs. Prof. Jackson, Schenectady, Vol. Trans.

Best Floral ornament, F W Boyce, Utica, silver medal; 2d do, Mrs. Lyndes, Utica, $3; 3d do, Ellwanger & Barry, Rochester, Vol. Trans.

Best seedling Dahlia, F W Boyce, Utica, $3; best 25 varieties Dahlias, Mrs. Prof. Jackson, Schenectady, $5.

DISCRETIONARY.

12 beautiful Dahlias, I H Chedell, Auburn, $2; collection rare flowers, Mrs. Lawrence, Utica, Vol. Trans.; collection rare flowers, Mrs. J E Hinman, Utica, Vol. Trans.; collection rare flowers, Mrs. Benjamin, Utica, Vol. Trans.; lemon tree, etc., S D Childs, Utica, Col. Tour.; rare plants, etc., J B Marchisi, Vol Tr.

VEGETABLES.

12 best table Turnips, Dr A Brigham, State Lunatic Asylum, Utica, $1.

12 best carrots, G S Dana, Utica, $1.

12 best table beets, David Gray, jr., Marcy, $1.

12 best onions, B F Crossman, Rochester, $1.

3 best heads of cabbage, D Gray, jr., Marcy, $1.

12 tomatoes, D Gray, jr., Marcy, $1.

10 egg plants and tree of do., C E Goodrich, Utica, $1.

Best half peck Lima beans, Dr A Brigham, Utica, $1.

3 best squashes, Dr A Brigham, Utica, $1.

Best half peck table potatoes, James Rees, New Hartford, $2; 2d best half peck table potatoes, R Eells, Westmoreland, $1.

Best seedling potato, 4 specimens, ½ peck each, H N Langworthy, Irondequoit, $5.

12 ears best seed corn, Chas. W Eells, Kirkland, $1.

DISCRETIONARY.

Potato onions, J Greenleaf, Brockport, Vol. Trans. and $1.

C E Goodrich, for several samples of watermelons and canteopes, and to G W Cromwell for watermelons, Vol. Trans. each.

Sweet corn, C E Goodrich, Utica, $1.

D Gray, jr., for great variety of vegetables, vol. Tr.

MISCELLANEOUS AND DISCRETIONARY PREMIUMS.

G Farmer, Mohawk, steam dairy operator, diploma.

A E Jackson, Boonville, cheese press, diploma.

Mrs. L T Marshall, Vernon, shawls, mitts, and gloves, $3.

Mather Beecher, Remsen, bark mill, Vol. Tr.

S Purdy & Co., Whitesboro, oak churns and molasses can, Vol. Trans.

N P White, Whitesboro, dentist plate work, diploma.

C Lombard, Elbridge, improved fence, Vol. Tr.

Miss Olive Austin, Smyrna, knit veil, caps, etc., $3 and dip.

Warren & Bryan, Utica, tobacco, cigars, and mustard, dip.

Mrs. Guinguiguiner, Utica, fine specimen of millinery, dip.

Benedict & Barney, Syracuse Gold pens, an elegant article, diploma

Henry Lawrence, Mt. Upton, Chenango co., compound lever tug-buckl, diploma.

Mrs. D Skinner, Deerfield, marine palace of shell-work, highly creditable to her taste and ingenuity, and 2 ottomans, and pair shoes, $3.

Four church bells, A Meneely, West Troy, very superior, cert., having received the premium heretofore.

Miss C Devereux, Utica, sofa cushion, and worked table cover, diploma.

Mrs. L Jones, Utica, case of wax ornaments, an elegant article, $3.

Jonathan Coxon & Co., Utica, brown earthen ware, $3 and dip.

Curtis & Van Asdale, Kirkland, sample same, $2.

Noah White, Utica, stone ware, $3.

Lucretia Tyler, Lawrence, horse netting, $3.

Walter & Gavit, Albany, best daguerreotypes, silv. medal.

Representation of Noah's ark of 220 figures, cut with a jack-knife, James Songster, Buffalo, 14 years of age, $3.

Gaius Clark, Syracuse, congress desk, Vol. Tr.

Miss Mary E Spencer, Utica, elegant embroidered shawl, dip.

Mrs Jas. H Dundar, East Hamilton, pair fringe mittens, $1.

Miss L C Morris, Auburn, shell work, $5.

Miss Gay, Troy, shell flowers and seed bags, $2.

Grove Lawrence, Syracuse, bbl. patent salt, diploma and Vol. Trans.

Joseph Miller, Utica, miniature ship and frigate, $3.

Elon Comstock, Rome, agricultural and horticultural implements, $5 and diploma.

Julia N Comstock, Rome, Albany, embroidered port-folio, dip.

D J & A I Smith, Syracuse, hand rail-road car, diploma.

Mrs. Mary E Stevens, Utica, brass bound shell box, $2.

Wm E Butler, Phelps, coon skin robe, Vol. Tr.

G W Henry (blind man), Frankfort, brushes, $2.

David Kendall, N. Lebanon, thermometers, diploma.

J T Farrand, water drawing machine, Vol. Tr.

Mrs. Voorhies, Amsterdam, 4 cases manufactured articles, silv cup, value $10, and diploma.

Brainard, Comstock & Co., Rome, plows, diploma.

Geo. Geddes, Onondaga co., five samples seed corn, all very fine, diploma.

S C Coffin, Portland, Chatauque co., oil paintings, highly commended as specimens of early effort in the art.

Miss E W Gridley, Kirkland, specimens of oil painting, dip.

Miss L M Eames, N. Hartford, eight knit window curtains, dip.

Miss L M Pierson, Sullivan, Madison co., an elegant white counterpane, dip.

Mrs. Luke Coan, Westmoreland, straw hat manufactured by herself dip

E K Browning, Utica, specimens of machine cards, $3 and diploma.

Hopkins, Sergeant & Co., Auburn, box of machine cards, $3.

Mrs. Mary Bradley, Utica, for an elegantly worked and embroidered bed-spread, $5 and dip.

Male members of State Lunatic Asylum, case carved toys, exhibiting great taste, skill and perseverance, dip.

Female members of the same, for a case of fine specimens of embroidery and needlework, which elicited the unqualified approbation of the committee, dip.

Catholic Orphan Asylum, Utica, fine specimens of raised worsted-work, dip.

Miss O'Toole and Miss Mary Putnam, Rome, two samples of raised worsted work, very creditable to the exhibitors, dip.

Miss Margaret Hawthorne, Deerfield, embroidered apron, $2.

C M Curtenius, Utica, two specimens of finely shaded worsted work, $3 and dip.

Mrs. George R Fairbanks, Adams, a pieced bed-spread, $3.

Mrs. George B Cary, Richfield, six worsted worked chair bottoms, fine specimens of embroidery, $3.

Miss Augusta, Dye, Penn Yan, embroidered piano cover, a tast and beautiful article, $2 and dip.

Miss M J Johnson, Little Falls, needle work on paper, $3.

Miss Wm. Otley Phelps, pieced bed-spread, $3.

E P Webster, Utica, sixteen years old, carved miniature cottage, $2.

Miss Abby Allin, Carlysle, Wyoming co., embroidered screen and sofa pillow, of great merit, $2.

Wm. Potter, Marcy, pair of horse blankets. $1.

John Kirkland, Kirkland, worsted table cover, dip.

G W Brownson, Amsterdam, specimens of corn brooms, $2.

Miss M J Morris, Auburn, samples of lace work, $3.

Mrs. Achsah Cole, Columbia, Herkimer co., two pair of cotton woollen blankets, $3 and dip.

Miss Georgiana S Manning, Syracuse, worsted worked reticule, $2.

Mrs. Hamilton Spencer, Ithaca, embroidered chair, dip.

Mrs. C M Bennett, Penn Yan, Yates co., an Ottoman cover, diploma.

J Parish Mendon, Monroe co., for a washing machine, patented to Nathan Parish, Rush, Monroe co., Vol. Tr.

John Wilkinson, Union Vale, Duchess co., presented a convenient plan of a barn, commended.

Solomon Phelps, Lowville, a sausage cutter, dip.

Jas. Goold, Albany, a two horse pleasure sleigh, very beautifully as well as permanently constructed, dip.,

B S Seymour, Westmoreland, window and door butts and fastenings, dip.

Elijah Hurlbut, Waterloo, clover machine, dip.

Joel Clough, Whitesborough, self-setting apparatus for saw mills, dip.

J L Cady, Newport, Yates' patent lock, dip.

Dunbarton Glass Factory, Durhamville, Oneida co., specimen of glass, dip.

FLOUR.

For *good* barrel, John Rowling, jr., Manlius, dip.; for *bette* barrel, Jno Williams, Rochester, $3; *best* barrel, John G Rowling, Manlius, $5.

COOKING STOVES.

Atwood's Empire Cooking Stove, presented by E Tyrrell & Son, Utica, first premium, dip.

PARLOR STOVES.

Bailey, Wheeler & Co., Utica, air-tight parlor stove, dip.

Robinson & Vanderbilt, Albany, 4 light pleasure wagons, dip.

D A Lyons, Utica, light pleasure wagon, $3.

William Little, Edwards, St. Lawrence co., double acting bellows, dip.

Charles Pope & Co., Syracuse, sample of plating, a superior article, dip.

O Reynolds, Webster, Monroe co., best beehive, dip

Ray and Madole, Norwich, Chenango co., steel hammer, good workmanship, Vol. Tr.

Thomas Potter, Utica, knitting and lace machines, very ingenious articles, dip. and Vol. Tr.

Benjamin S Walcott, agent of the N Y Mills, presented a number of pieces of corded dimity, bleached shirting twilled jeans, French (pantaloon) plain and corded skirts; articles which were of superior excellence, dip.

Mrs. H Rhodes, South Trenton, Oneida co., a box of butter elegantly wrought into representations of various implements diploma.

COUNTY AGRICULTURAL SOCIETIES.—We hope the officers of these societies, in distributing premiums among the members, will not, among other periodicals, forget the American Agriculturist. We think it one of the most useful books that can be given the farmer, and would request their attention to the remarks of a correspondent, page 318 of this number.

Agriculture in Scotland.—No. 12.

In continuation of our journey from Edinburgh to Newcastle, I next come to the country between Kelso and Coldstream, a distance of 12 or 14 miles. At the time of my visit the hedges were in full bloom, and the air sweet with their perfume. This of course gave the country a delightful appearance, but apart from it, the cultivation and the crops were very fine. The grass was looking particularly well, as also the wheat. The turnips were in general, at that time (June 14th), not far enough advanced to enable one to decide as to the prospects of a crop.

The Tweed here forms for a long distance the boundary between Scotland and England, and almost every point of the shore could tell its tale of the border wars. I might easily occupy my sheet with descriptions of places famous "in song and story," but restrain my inclination by the remembrance that such matters, however interesting, have nothing to do with my present subject.

We crossed the Tweed at Coldstream, entering Northumberland. The country for some miles on the English side is very beautiful and highly cultivated. On the fatal field of Flodden, the wheat was waving tall and luxuriant. This tract was at one time a barren, bleak moor, and in the days of old it was continually beaten down by the passage of predatory expeditions, and the strife of contending armies. A gentleman told me that he remembered when the beautiful country we were passing over, was nearly all wild and unproductive. There is now not a trace of such unimproved land to be seen. Some of the farmers in this quarter have very large farms. The coachman mentioned one to me who pays £2,000 ($9,600) per annum of rent. Another near him pays something more. Neither of these farmers has less than 200 acres of turnips.

The country grows more bleak towards Wooler, and from that place to Morpeth it is in many places quite neglected, and in others entirely in a state of nature. I may indeed say that from Wooler to Durham, with exceptions, of course, the country is not cultivated as it should be; far the largest portion of it is undrained, the water standing in every furrow after rain. Another bad sign is the abundance of weeds, which are seldom thoroughly pulled, or extirpated in any way. The soil is for the most part derived from the coal formation rocks, and is therefore, naturally rather poor, and in many cases very stiff. The farmers near Durham seem to have made up their minds as to the impossibility of profitably improving these stiff soils beyond their present productiveness. Agriculture generally in that quarter is behind the age; the fields are in most cases full of weeds and very wet; or if dry, in large lumps like pieces of brick. Without venturing any opinion on the vexed subject of free trade, I may be allowed to state a fact first mentioned to me by Prof. Johnston, and since amply confirmed by my own experience. It is in our observation, almost invariably the case, that where the farming is best, there is the least cry for protection. Seeing that protection is gradually being withdrawn, like prudent men they endeavor to improve their land, so that if it is entirely withdrawn they may still cultivate it with profit. The bad farmers, on the other hand, instead of taking hold with fresh vigor at the prospect of difficulties, in too many cases content themselves by a great outcry for *protection.* Such is the cry about Durham. The greater portion of the land is undrained and cold, yet as they only hold their farms by annual agreements, they say that the proprietor should be at the expense of draining. They will not take long leases, as in Scotland, because they are afraid of the corn-laws being further modified. Thus they stand balancing. There is no doubt that annual leases are one great evil, and another is their incredulity as to the success of improvements elsewhere. If a practical man in another part of the country, says that his drains pay him in two or three years, they shake their heads in absolute unbelief. If they are told that by effectual draining and judicious subsoiling, turnips may be profitably grown on clays stiff as theirs, they openly say that the thing is preposterous. Even if the personal testimony of some intelligent and enterprising Scotch or English farmer is brought forward as to his own methods of procedure, with opinions and *facts*, as to the profits of his improvements, they still get off by expressing their belief that he is going too fast, and deceiving himself, and will at last find the fallacy of his calculations. Whatever may have been done on other soils, they are quite sure that there is something about theirs—some peculiar circumstance which renders such improvements impossible, that is, so far as profit is concerned. I have mentioned these excuses and reasons because they are made by a very large class in England. A few judicious experiments on a limited scale, would set them upon the right course for the improvement of their land; but they have no desire to make them.

There are, however, some farmers near Durham, who are improving gradually, and who will, I hope, induce others to follow. One of the best is Mr Crofton, well known as a breeder of Short-Horn-stock. I rode out to see his herd, and was much gratified. One of his cows last year beat all England, at Southampton, and has lately won many other prizes. For a cow inferior to his best, he has refused 300 guineas. Much of his stock, he tells me, has gone to America; among others his bull Comet to one of the western States.

While at Holkham, in Norwich, a few days afterwards, I saw some pure North Devon stock, of the beautiful red, so much admired by our New England farmers. One bullock just fat weighed about 70 stones (900 lbs.). Some of the cows showed an astonishing aptitude to take on fat. They are not remarkable as milkers. The breed has long been kept in great purity on the Earl of Leicester's home farm at Holkham. John P. Norton.

Edinburgh, August, 1845.

THE FORCE OF HABIT.

My experience teaches me that I fail much oftener from inattention to little matters, than for want of general knowledge in the practice of farming. And this inattention in nine cases out of ten is the legitimate offspring of habit; and the reason why habit takes such an erroneous direction arises from the fact that our minds are naturally attracted by the magnitude of objects, without considering that this magnitude is only attained by the accumulation of single atoms.

To illustrate the importance of this idea, we will suppose two farmers, A, and B, start at once in the business of farming with $1000 capital each. A.

saves six per cent. a year by exact economy, whilst B, sinks property at the same rate. For a time, perhaps, we shall hardly be able to notice any difference in their thrift; but in the course of a few years we find A, a wealthy farmer, and B, fast sinking to poverty. A fraction short of twelve years would suffice, at compound interest, to place A, in possession of $2000, and B, with $500. Twelve years more would give A, $4000, and B, $250. Another twelve years would give A, $8000, and B, $125. Thus we see the result of habit in these two men in the important results produced, supposing providence favored both alike. But this is not all: habits generally acquire strength with the lapse of time. The man who sinks in the ratio of six per cent. at first, would soon reach twelve, and so on, until his accelerated speed dashed his fortunes in the irretrievable gulf of ruin.

Suppose now we look at the practice of these men a little in detail. They neither of them are dissipated men in their general habits, and as to integrity and common sagacity are good at work. But A, has learned to calculate a little closer. He knows it requires no more to keep a good cow than a bad one. Hence, then, we find him in possession of a little better stock. His cows give at least a quart of milk more a day than B's; his sheep yield a little more wool, and a little finer. Here then he saves a few dollars. A, also seizes with avidity a few leisure hours to haul his muck, etc., for manure; whilst B, feeling a little tired, or the oxen being in the pasture at some distance, thinks it best to omit it until he can hire a hand a day and get a good lot of it. Thus A, has a little more manure, and of course a little better crop. So we see A, not only producing more, but the foundation of his prosperity widen in every direction.

But perhaps some one will say we can't help habit —it's second nature. Asking your pardon, sirs, I demur to this statement. You have the powers of reason, and the faculty of judging given you by your Creator, and no earthly power can hinder your exercising it. Accustom yourselves then, in every branch of your business, to ask this one question: is the method I propose the best, all things considered? Make a calculation of the profit or loss of every crop, and increase or diminish each kind as more or less profitable; having a reference to the permanent improvement of the soil. I have frequently been surprised at the results I have obtained in such calculations, and frequently altered my course very much to my advantage.

But you may not only improve your own habits by the discreet use of your judgment, but you have to do with creatures of habit. Even your domestic animals have habits which may gradually be moulded to your advantage. Seize every opportunity, then, to make them subservient to the great business of life. I will illustrate this by one very simple incident. I have a considerable range of woodland pasture, and I find by giving my cattle their salt at night near the outlet of the pasture, they soon learn to resort to that spot at that time of day. Another incident may be worth relating. I had come to the conclusion that a small lot of hens would more than pay for their keeping in destroying worms, &c., without any reference to their eggs or chickens, provided I could learn them to keep out of the grain. Now for two years past I have not had a mite of trouble with them, though running at large all the time, and grain within ten rods of the house and barn. The simple and effectual remedy is to turn down a lot of corn or grain for them to go to as they please. And the way they turned out the eggs in consequence was a caution to those who neglect to feed their biddies.

Peru, Me., June, 1845. J. H. JENNE.

THE ACCLIMATION OF EXOTIC TREES AND SHRUBS.

I HAVE thought that some comments on the acclimation of exotic Trees and Shrubs, whose characters in this respect are not generally known, would be acceptable to the public.

The *Paulownia Imperialis* may be ranked as the most splendid exotic tree that has ever been introduced to our country. In Japan it attains a height of forty to fifty feet, and at the *Jardin des Plantes*, at Paris, the original tree had, in the summer of 1844, attained a height of twenty feet. It has, under favorable circumstances, at Paris, made a growth of twelve feet in a season. The leaves are fifteen to eighteen inches in diameter, and on some young trees but two and a half feet high, I have measured leaves fifteen inches in diameter. They are entire, dark green, of a thick velvety consistence, and remarkable for their luxuriance. The flowers are pale purple, campanulate, and produced in plenty even on young trees. This tree is destined to supplant many of the ornamental species, that are now deemed favorites. It is perfectly hardy, and withstood the last severe winter without the least injury whatever.

The *Cedrus Deodara* of the Himalaya mountains, is a splendid evergreen, and has also proved hardy. The *Araucaria imbricata*, or Chili pine, remarkable for the peculiarity of its foliage; the *Cupressus Sinensis*, or Chinese weeping cedar; Euonymus Japonicus, a beautiful compact evergreen shrub; and the *Ilex balearica*, the most beautiful of the hollies, all support our winters unprotected. I have noticed that most persons still cultivate the *Aucuba japonica, Rhododendron ponticum*, and *Catawbiense*, in pots, whereas no such care is requisite. Even the hybrid varieties of the *Rhododendron arboreum* withstand our winters with a simple binding of straw. The splendid varieties of the *Pæony moutan*, or Tree Peony, have become so acclimated that they now form appendages to all fine gardens.

The *Aralia japonica, Hydrangea japonica, Hotteya japonica*, all of which are newly introduced, are perfectly hardy. The *Eriobotrya japonica*, when young, is often killed nearly to the ground; but when it attains to a large size, it will no doubt withstand all cold. The *Lycesteria formosa* often perishes to within a few inches of the earth, but throws up such a profusion of strong shoots in the spring, that it seems determined to quickly resume its position. The *Bignonica grandiflora* has been standing in my grounds for fifteen years, unprotected, and the body is now twenty-two inches in circumference, and at this date it forms one of the most magnificent appendages of the garden. I will here mention that I have trees of both sexes of the *Salisburia adiantifolia*, of Japan, so remarkable for its foliage. These I had the pleasure of showing to Mr. Browne, who is now preparing a Sylva on an enlarged scale. Mr. B. had vainly sought for the two sexes of this tree in other parts of the Union. The *Calycanthus*, or Chimonanthus fragrans of China, has produced seeds with me the present season, on a fine shrub, nine feet high, and its blossoms expanding during the first warm days in February, yield a delicious perfume when most in requisition. The *Nandina domestica*, *Photinia serrulata*, English and Portuguese laurels, *Arbutus unedo* and *andrachne*, and the varieties of the magnolia grandiflora, I protect slightly in winter by a simple board frame. I am gratified to tell you that the *Photinia arbutifolia*, and the splendid and unique family of the *Mahonias*, as well as all the splendid species of the *Lonicera* and *Ribes* families from Oregon, withstand our severe winters, and are flourishing in my grounds with extreme luxuriance. This result is peculiarly gratifying, as the climate of that remote and interesting portion of our country is so much more mild than our own. These beautiful shrubs would however speedily perish if they were subjected to the extreme rigor of such a winter climate as Sir Francis Drake has portrayed as that of Oregon. There could be no test more decisive as to the verity of his statement of having visited that coast, than could be furnished by a botanical committee, based on the relative hardihood of its vegetable productions, and their decision would possess this great advantage, that in such a test the botanists of all nations would perfectly accord.

Wm. R. Prince.

Prince's Linnæan Botanic Garden & Nurseries,
Flushing, July 25, 1845.

CHESHIRE CHEESE.

The last journal of the English Agricultural Society contains a prize essay, by Mr. White of Warrington, on making cheese in Cheshire. As we have not room in our pages for the whole article, we condense and extract from it.

Time when cheese was first made in Cheshire.—The fame of the cheeses of Cheshire is of very ancient date: at least as old as the reign of Henry I. (A.D. 1100). The Countess Constance of Chester, though the wife of Hugh Lupus, the king's first cousin, kept a herd of kine, and made good cheeses, three of which she presented to the Archbishop of Canterbury. Giraldus Cambrensis bears honorable testimony to the excellence of the Cheshire cheeses of the day.

Quantity made in the County.—There cannot be less, upon a moderate calculation, than 12,000 tons made in that county annually; a considerable portion of which is of excellent quality.

Art of Cheese-making.—The art of cheese-making consists in the complete extraction of the whey and in the proper compacting and curing of the curd. The richness of the cheese depends upon the quality of the milk, or, in other words, on the proportion of cream which the milk contains. The cheese of Cheshire is professedly made from new milk, or milk from which no cream has been taken. It is, however, well known, that in many dairies, in the morning before cheese-making, a small quantity of cream is skimmed off the previous evening's milk; this cream is either churned by itself, or mixed with whey-cream, by which there is obtained a better quality and greater quantity of (so called) whey-butter. It may appear singular to some, that any portion of cream should be found in whey, but such is the fact, and the means used in Cheshire for extracting it are very simple.

Making of Butter from Whey-cream.—This varies very little from the process of making butter from the cream of milk. The cream is kept for three or four days, or until it has become clotted (provincially termed *calved*). Those who make the best whey butter have a spigot and faucet to each of their cream-mugs to let off the whey, which in the course of a few hours settles at the bottom, and which, if allowed to remain, imparts a rank flavor to the cream, and consequently to the butter. The temperature of the cream, when put into the churn, is generally ascertained by the hand; but if a thermometer be used, the heat which I would recommend is 60°, having found that the best. If it be much *higher* than this, the butter may be expected not only to be soft, but inferior both in quantity and quality; and if much *lower*, the operation of churning will be prolonged, and indeed tedious. At this heat the time in churning will probably be about an hour and a half. It will perhaps be necessary in cold weather to put hot water into the churn, and in warm weather to put in cold water, in order to attain this desirable object as to heat. From 100 gallons of milk there will not be less than 90 of whey, which should yield from 10 to 12 gallons of cream, or 3½ to 4lbs. of butter. The quantity of whey-butter per cow is about half a pound per week, taking the season through; but with that small portion of cream of the evening's milk added, the farmer often churns as much as three quarters of a pound of butter per cow per week, or from 20 to 25 lbs. per annum: 1 lb. of salt is sufficient for curing 37 lbs. of butter, if for present use.

Number of Cows kept, and Produce.—The number of cows kept for the purpose of a cheese dairy is seldom less than 8 or 10, or more than 70 or 80; and is of course regulated by the size of the farm—these average about 90 or 100 statute acres, upon each of which about 15 or 18 cows are kept. From 18 cows, a cheese of from 36 lbs. to 54 lbs. weight is made daily during four or five months of the summer. The annual produce of cheese per cow depends both upon the quality of the animal (with the mode of keeping her) and of the *land*, or rather the *herbage*. I have known many farmers sustain great loss by not feeding their cattle sufficiently well in winter. With judicious management, about 3 cwt. of cheese (of 112 lbs.) may be considered as the average amount made per annum upon land let for 30*s.* a statute acre; but in a few instances 5 cwt. per cow, and even more, is sometimes made. This can only be from a small and choice stock.

Milking.—This operation commences about five o'clock in the morning, and five or six in the evening. In this county it is the practice for most of the servants, both men and maids, to assist, and for the cows to be milked in the cowhouses (called here "skippons") all the year round. When, as is usual, there is one milker for six or seven cows, the milking seldom exceeds an hour and a quarter. The milk of new-calved cows is not mixed with the other until about four or five days after calving.

Offices and Utensils.—As the evening's milk is seldom made into cheese until the following morning, and sometimes in small dairies (where four "meals" are used) not until the second morning, a cool "milk-house" is necessary; on which account it usually occupies that side of the farm-house least exposed to the sun. The utensils in which the milk is kept are usually portable shallow earthenware vessels called "pan-mugs," and in some dairies leaden or zinc coolers. Most of the milk-rooms have lattice or wire windows for the circulation of air, and the floors are laid in a sloping form for the free escape of the cold water with which they are daily swilled throughout the summer months. If precautions of this nature be not attended to, there is a risk of the evening's milk becoming *sour;* in which case, whatever quantity of new milk be added to it in the morning, the cheese will be *sour* also. I am led to believe that a temperature of as near 50° Fahrenheit as could be maintained, would be the best for a milk-house throughout the year. The *dairy* is generally situate near the milk-house, and fitted up with two *set-pans* or *boilers*—a large one for scalding the whey, and a smaller one for heating water. The "cheese-presses" and "screw" are kept within this room, and the operation of cheese-making is here carried on.

Lever Pressing.—Poles, weights, and screws are now superseded by a new lever press. The advantages of this over the screw are, *that it sinks by its own action with the curd—any degree of pressure required can be applied and gradually increased, and less attention is necessary;* whereas the pressure from the screw is sudden and uncertain, and having no self-action, requires the dairy-maid's assistance every five or ten minutes to render it effectual.

Quantity of Salt Required, and Temperature of the Milk.—A farmer in South Cheshire, well known for his introduction of improvements in agriculture, has commenced the system of weighing his curd previous to salting it, and he says he uses salt in the proportion of 1 lb. to 42 lbs. of curd. He also informs me he sets his milk together by a thermometer, and at a temperature of 76° or 77°.

Quantity of Cheese Milk will Give.—It has generally been considered that a gallon of milk (supposing little or no cream has been taken from it) will produce upon an average of the season 1 lb. of saleable cheese; that is, when the cheese is four or five months old. In autumn there is always more curd from the same quantity of milk than at any other part of the season.

The Curd-mill.—This is of recent introduction, and it is only in a few dairies that it is met with; some dairy-maids highly approving, others objecting to it. I think it will soon be more generally adopted, as it effects a saving in time, and breaks the curd more regularly than it can be done by hand.

A Recipe for Curing the Maw-Skins (Stomach).—Procure the skins from the butcher the year previous to their being wanted; clean out the chyly matter, and every other apparent impurity; the inside is then turned outward on a table, and salted; the skins are then laid one upon another, with a layer of salt between each, in a deep earthenware vessel similar to a cream-mug; they are then covered over with salt, and have a lid of slate or flag placed on the top. They are taken out as wanted, about a month previous to being used, and the brine drained from them. They are then spread on a table, and fine salt is powdered on each side. In this state they are rolled with a paste roller, distended with a splint of wood, and hung up to dry.

Mode of Making Rennet from Maw-Skins.—The *rennet,* or *steep* as it is commonly called, is next added. I have already stated in the introduction, that this is an infusion made from the preserved stomach or maw of sucking calves, thence called *maw-skins* or *bag-skins.* To define the quantity of rennet sufficient for coagulating a given quantity of milk is a very difficult matter, as the maw-skins vary so much in quality. When the farmer is laying in a stock for the year, he generally calculates upon a dozen of skins to a ton of cheese, but the skins vary in size (the price when cured is from 6s. to 9s. per dozen). In using them, it is the practice often to cut two skins at once. Three square inches taken from the *bottom* (or strongest part) of one, and one or two inches from the top (or weakest part) of the other, is generally found sufficient for sixty gallons of milk. These two pieces of skin are put into a cup containing about half a pint of luke-warm water, with the addition of a tea-spoonful of salt, some part of the day previous to being used. The water thus impregnated with the maw-skin is passed through the sieve into the milk, but the skin itself is generally, though not always, kept out. The rennet cup is well *scalded* before being used again. I have been told that some farmers make a sufficiently large quantity of rennet to last for several weeks, and find it to answer better than making a small quantity daily. The question is, will it keep *sweet?*

ISABELLA GRAPE.

In the June number of the Agriculturist, page 179, your correspondent, D'Jay Browne, gives the history of the Isabella grape, as he received it from General Swift. I regret not having seen this article sooner, as I had the pleasure of spending an evening with the General in this neighborhood, a short time since, and would have been glad to have had a talk with him on the subject. This account is, I presume, correct as far as it goes; but as I have a history of this identical grape, at a date far earlier than 1817, I give it to you.

For some years previous, and subsequent to 1800, a gentleman named Vernet lived in Norwich, Ct. He was either a Frenchman or a West Indian, as I have understood. He had a beautiful residence near the Yantic river, which he built, and while living there planted a vine which, a dozen years ago, was still standing on the premises then, and perhaps now, occupied by the family of the late Capt. Benjamin Lee. This vine has been multiplied into many gardens at Norwich, and is now to be found in great perfection there, and in its vicinity. Mr. Vernet died some years previous to the war of 1812. The vine was *supposed* to be brought by Mr. Vernet from either France or the West Indies, on one of the islands of which he was extensively engaged in commercial pursuits. I made, several years ago, minute inquiries about the particular history of the grape, but these general facts are all I could obtain in reference to it.

A cutting, or layer from this vine was transplanted into the garden of a Mr. Brown, the father-in-law of Mr. Vernet, previous to the last war, where it flourished in great perfection, and was still in existence in 1838. This latter place has been for upwards of twenty years occupied by Bela Peck, Esq., who multiplied this grape extensively in his gardens, and adjacent grounds. The old vine grew a distance of 30 or 40 feet from its root, and bore large quantities of delicious fruit. That this is the true Isabella, I have no question. I planted cuttings from it fifteen years ago side by side with Isabella roots from the Long Island Nurseries, and the fruit of each was alike: so too were the vines in wood, leaf, and vigor of growth. It is evident, therefore, that the Isabella grape existed somewhere other than in South Carolina, previous to 1800; and whether it be hybrid, or not, it was cultivated elsewhere than in that State. Perhaps some octogenarian of Dorchester, South Carolina, or Norwich, Connecticut, may give you further information of its origin. The real history of such a valuable grape, of American origin, should be preserved.

Black Rock, July, 1845. L. F. A.

NOTES ON HORTICULTURE.

Suckers of Fruit Trees.—The nurserymen of this country have for many years been in the practice of inoculating the pear upon suckers. This has arisen in a great measure from the great difficulty experienced in our hot climate of obtaining good pear stocks from seed. For apples, cherries, plums, and peaches, seedlings only have been used, not only for their superior thriftiness, but from the greater difficulty in obtaining suckers of these fruits. The very great loss incurred by nurserymen in transplanting pear suckers for stocks, has induced them to renounce them entirely, and most of the sea-board nurseries, with our own establishment, have entirely discontinued the use of suckers, and now inoculate upon seedlings only. We cannot however agree entirely with many writers who assert that *only* unhealthy trees can be produced from suckers. Where no care is taken in selection, and buds are placed upon knotty, stunted, and unthrifty suckers, nothing can be expected but stunted and unhealthy trees; but our own experience is convincing that if young and thrifty suckers are selected, perfectly healthy trees can be produced. We can point to numerous rows in our grounds, of pears budded on suckers, during the first years of our establishment, which have grown most luxuriantly, show no enlargement at the point of inoculation, and have borne, for their size, an abundance of delicious fruit. We have also in our grounds pear-trees nearly half a century old, which were inoculated, to all appearance, upon suckers, and which grow luxuriantly, and bear abundantly. The unthrifty nature of many pears on suckers is not, we think, owing to the presence of any disease in the stock, but to the attacks of insects, which it is well known will infest a tree in much greater numbers when it is stunted or does not grow rapidly.

Although causes mentioned above have induced us to abandon suckers for stocks, we do not think them deserving of indiscriminate censure, but are well satisfied to use them for our own orchards, if we can select sound, healthy, and thrifty growing trees.

White Doyenné Pear.—This fruit as we learn from the various periodicals, and from our own correspondents, has been infected with disease, not only in the Eastern States and on the seaboard, but throughout the country, in the interior of Pennsylvania, near Cincinnati, and through Ohio, and in the state of New York. A short time since we wrote to various correspondents for information on this point, and have received numerous answers to the above effect. We learned that the fruit of this variety was infected also about Albany, and in some localities on the Hudson river. We speak of the fruit being infected, for the tree is evidently untouched, and grows with as much luxuriance as any other variety. It is now generally acknowledged that this deterioration in the quality of fruit is owing not to any actual disease existing in the tree, but to the depredations of insects, which it is well known will often prey upon some particular varieties of trees or fruit for successive years. It is, I believe, a fact, that young trees of this variety produce healthy fruit. This is doubtless owing to their greater thriftiness, and to the cultivated condition of the soil. Our own experience would seem to strengthen this opinion, that disease may in a great measure be eradicated by care and high cultivation. Our old Doyenné trees, some forty or fifty years old, had for many years suffered from the common blight. For the last two years the orchard has been highly manured and cultivated, and this year much of the fruit produced is perfectly sound, and with its ancient delicious flavor. The same treatment produced the same result in the Newtown pippin, which had shown some symptoms of the same blight. We have every reason therefore to think that the white Doyenné has not "run out;" that it is gradually improving, and that by care and cultivation it may be restored to its pristine vigor and perfection.

High Prices of Plants and Fruit in England.—It is astonishing what prices will be paid for comparatively insignificant things by those who have more money than they need. While I was in England, a nurseryman at Tottenham, I was informed, sold one plant of a new variety of pansey or heart's ease for five hundred guineas (2500 dollars). In Covent Garden Market, London, strawberries were selling at 1*s.* 6*d.* (37½ cts.) per ounce, peaches two guineas per dozen (80 cents each), grapes one to two guineas per pound, and pine apples one to two guineas each, of immense size and beautiful appearance. It is no unusual thing for a lady to have on her table at a party, fruit costing from £400 to £500; and one nobleman, some years since, gave a dinner for which the fruit alone cost £6000 pounds sterling (about $30,000). With such encouragement, it is not surprising that the forcing of fruit is carried to a greater perfection in England than elsewhere.

Brussels Sprouts.—I do not recollect ever to have tasted this delicious variety of the cabbage in this country. During my recent visit to Brussels it was in perfection, and possessed a flavor very similar to that of stewed oysters. It is in form a miniature cabbage, head about the size of a dime, and is brought on the table cooked in the same manner as asparagus. It is in season nearly two weeks before asparagus, and is truly a delicious vegetable. It can doubtless be cultivated here successfully, and may have been, although I am not aware of it.

Sap Generates Buds.—"On the banks of the river Derwent stood a large hawthorn hedge, which being undermined by the water, fell in and left the greater part of the roots in the bank, about 1 or 2 feet below the surface; the bank still wearing away has exposed them to the air for the length of 3 feet or more, and they are now in every respect similar to branches, developing buds, and consequently all the appendages of the axis; they appear anatomically the same as branches, excepting the pith, of which they are destitute. Now, it appears that roots when so circumstanced perform all the functions of the stem, confirming Knight's theory, that sap can at any time generate buds, without any previously-formed rudiment, when circumstances are favorable to their production."

The above extract I have copied from the London Gardener's Chronicle, and in connection with it I recollect hearing the late Alderman Stevens remark, that he once inoculated a laburnum with a blue Cytisus. The bud of the Cytisus was accidentally broken off, and there appeared buds at the point of union of the bark of the bud with the bark of the stock. These buds grew and bore laburnum flowers, but blue like the Cytisus, and partaking of the nature of both stock and scion, thus proving that sap will generate buds without any previously existing rudiment.

S. B. PARSONS.

Commercial Garden and Nursery,
Flushing, L. I.

PLOWING.

PLOWING is one of the greatest and most important operations in agriculture; particularly in heavy soils. I have plowed a great deal myself, and have taken particular notice how others have plowed ridges in New Jersey, and elsewhere. The centre of the ridges was too high, and two banks were made in each ridge, which prevented the water from coming into the furrow, because the ridge was not plowed on a round curvature, as described by Judge Buel, in the Farmer's Companion. I was once in Dutchess County, and there I saw a field plowed in ridges, and the gentleman told me that he had scraped the furrow with a scraper and hoes, for the purpose of giving the ridges a round curvature. I have seen two similar instances of the same kind in Columbia County. I mention these facts to show that our farmers seem desirous of plowing ridges if they could have a plan laid down to commence the first six furrows. If the editor will please to ask the favor of some one of his correspondents to furnish us with a plain system of plowing —how to commence the first part of the ridge, and how to finish the ridge to have a narrow furrow, which will afterwards make smooth mowing and raking, and will drain the ground drier, than deep, wide furrows, particularly where there is not much fall for the water, he will greatly oblige me. (*a*)

I would like to know what kind of land will do best to trench. Kinderhook land is a gravelly subsoil, and requires more manure than we can find. (*b*)

B. B.

Kinderhook, N. Y. Aug. 22, 1845.

(*a*) We know of but one way to ridge land in plowing, which is done thus: Suppose you wish to plow the field into ridges of the usual width in this country, which is about sixteen feet. You then set the plow in the land eight feet from the fence, and run a furrow the whole length. Now jee about, and turn a furrow right back on to the first, and so continue until the ridge is finished. This will leave the ridge crowning in the centre, with one dead furrow by the side of the fence, and when the next ridge is plowed, two dead furrows between each ridge. If the plowing be done in a workman-like manner, the dead furrow will usually be a sufficient drain to carry off the surface water; but if not, a double mould-board plow should be run down between the ridges, and the dirt left in the dead furrow be drawn up with a hoe on to the ridge. Some kinds of land require ridges of not more than eight or twelve feet wide; other kinds will bear a width of twenty feet or even more, as the subsoil may be more or less porous. To obviate the crowning part of the ridge, and leave no dead furrow when seeded down with grass, reverse the plowing: that is, commence the first furrow of the ridge on the edge of it, by turning the first and second furrows into the dead furrow or narrow ditch made between the ridges by the first plowing, or cross-plow the ridges; or after the grass seed is sown and harrowed in, run a heavy roller over the ridges, commencing on the centre of each. A little practice in ridge plowing will soon make any one skilful in it, so that the land can be left more or less crowning, or with narrower or wider ditches between, as may be desired.

(*b*) It is very serviceable to trench-plow (subsoiling is not the same thing) any kind of land; but such as has the hardest and stiffest soil is the most benefited by it. This is easily done with a common plow following the surface soil plow, and loosening and stirring up the ground several inches deeper, bringing more or less of the subsoil to the top.

WHAT IS THE REMEDY FOR A COW THAT DOES NOT BREED?

I HAVE a cow of the Durham breed, that had her first calf in the spring of 1842; and the following spring had twins, one of which lived. In the summer of the same year she came in heat, but I did not allow her to take the bull until the next summer (1844), when she was served frequently, coming in heat about once a month, until the present summer; and being now almost incessantly in that condition, although she has repeatedly taken the bull; so that I am fearful I shall never be able to get a calf from her. I would therefore be much obliged to you if you would give me your opinion on the subject, and also advise me what course to pursue in order to get a calf.

E. B. POWELL.

Henry Co., Tenn., Aug. 10, 1845.

There are so many reasons why domestic animals will not breed that it is impossible to give an opinion unless one can see them; and even then it may be difficult to decide till after death, and by dissection of the generating organs. Perhaps the cow in question is too old to breed, or has been allowed to get too fat. If so, she must be reduced till quite poor. Again, her womb or some internal organ, may have been injured by the parturition of twins, or otherwise, or perhaps when put to the bull she has not been satisfied. Some animals require from two to a dozen services before they will conceive. We once owned a cow that could only be got in calf by turning her with three or four young bulls for a whole day, allowing them to serve her at will. We have also tried the same experiment with success with other domestic animals. Barrenness frequently arises from abortion, or from the female taking the male again too soon after parturition. In this case the animal must be kept away from the male, and in moderate condition, from three to six months, or perhaps longer, in order to give the womb time to strengthen. Our correspondent's cow of course we understand is not barren from this cause. We recommend his making different experiments with her, and if he is successful in getting her to breed again, to communicate to us the manner in which it has been accomplished. If any of our readers can give us further hints on this subject we shall be much obliged.

THE STRAWBERRY PLANT.

In my late communication on the strawberry, I discover one error. The wild Kentucky plant, I should have said, was *pistillate*, and produced 200 perfect fruit, on the one plant; and that the blossom was so defective in the male organs, that without a staminate plant near, it would not have produced a single fruit.

I now introduce, copied from Mr. Downing's work, three figures, illustrating the

Strawberry Blossom.

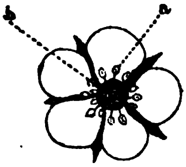


Fig. 68.

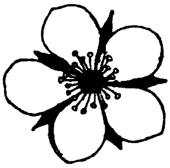


Fig. 69.

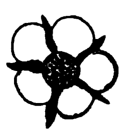


Fig. 70.

Fig. 68 is the blossom in its natural state; *a* represents the *stamens*, or male organs; *b*, the *pistils*, or female organs.

Fig. 69, a sterile *staminate* blossom.

Fig. 70, a sterile *pistillate* blossom.

The reader will now be enabled to understand from the above cuts exactly what I am talking about.

Mr. Downing fully admits the propriety of my practice, and the existence of separate staminate and pistillate plants. That the former are more or less defective in the female organs, and unproductive, and the pistillate ones wholly so, without staminate plants are placed near them, in the proportion of one to ten or twelve, when the pistillate plants produce a full crop. But he introduces a new theory, which, if true, dispenses with both staminate and pistillate plants, and less cultivation is required, and a crop one-tenth larger is produced; as the staminate plants are wholly dispensed with, as well as pistillate ones, and therefore the labor of keeping down superfluous staminate plants rendered unnecessary. His new theory is, that there is a third plant, perfect in the male and female organs, and capable of itself of producing a full crop of fruit. That all *natural* plants are of this character, and my staminate and pistillate plants, *monsters*, produced by *high cultivation, occasionally only*. That in making beds, you must select all *natural* plants, excluding an occasional plant defective in the one organ or the other. Is this theory true? If it be, to follow it, will be worth a million of dollars to the United States alone. For all who have gardens of their own, can, on a space of thirty feet square, raise sufficient for family use; and our gardeners raise them at a price to bring this delicious fruit within the means of the poorest laborer. There are few cases where I would venture to dispute the opinions of Mr. Downing, for I esteem him as one of our most intelligent horticulturists. But I do dispute it in this case, for I believe I have paid more attention to the character of this plant than he has.

By *natural* plants, I presume Mr. Downing means such as are found wild in our poor old fields, and such as are produced from seed. I wish him to reconcile the *possibility* of his theory being true, with certain facts which I shall state. If he denies any of my facts, I will furnish him the evidence.

In the poorest old fields in this and other States, as well as in the rich prairies of the west, we meet with pistillate plants, defective in the male organs, and never by themselves producing perfect fruit, and never failing in a full crop, when staminate plants are near them; and when the stamens are prominent, generally wholly barren, and never producing a full crop, from imperfection in the pistils. Why will all persons who raise largely from seed, tell you that about equal portions of staminate and pistillate plants are produced, and neither perfect in both organs? The former are generally wholly defective in the female organs, and always partially so, and never averaging half a crop; and the latter so defective in the male organs, as never to produce perfect fruit, and rarely defective ones, unless impregnated by staminate plants. That a blossom of the pistillate plant never fails to perfect all its fruit, unless a chance blossom be killed by late frost, if there be staminate plants near. That among thousands, they have never found what he calls a *natural* plant, one perfect in both organs, in all the blossoms.

Kean's seedling, and other staminate plants, occasionally have half of their blossoms produce large fruit, and other years not one to ten. The fault is never laid to the plant, but frost, or drought, or some other cause. If the staminate and pistillate plants were once *natural* plants, whose organs of generation have changed their character, by high cultivation, why is it that the flower leaf of the staminate is *one-third larger than the leaf of the pistillate?* Why is it, show, that our market gardeners, and even their children, can, when the plant is *out of bloom*, point out the staminate and pistillate plants, from the *stem* and *leaf?* I can well understand how a plant perfect in both organs, from a disposition from high cultivation to become a double blossom, may force out the stamens till they overshadow and destroy the humble female; and it is on this principle, I presume, Mr. Downing accounts for *chance plants*, that are defective. But I would ask him, if high cultivation, and a consequent disposition in his natural plant to produce double flowers, can lead him to believe it *casts down* the male organs in one plant, and thereby renders it barren, whilst it raises them *up* in the other, destroying the female organs, and thereby rendering the latter partially or wholly barren. On examining the pistillate plant, and separating the hull from the stem, to which hull the stamens are attached, he will find the stamens alive and healthy, but not one-twentieth of an inch long, and incapable of impregnating the pistils. It will be the interest, as I know it will be the desire of Mr. Downing, fully to test his theory, and cultivate none but *natural* plants, of all varieties, for sale, as all purchasers will now send to him. For heretofore, in buying from eastern nurseries, three times out of four, all have proved to be staminate plants, and of no value. Our Cincinnati gardeners sell pistillate plants in one bundle, and a few staminate ones, for impregnating, in another, except in cases where kinds are especially ordered, that have no pistillate plants. It would not do to make such a proposition in this region, but if I were in Kentucky, where such things are allowed, I would bet an *Irish kingdom*, that Mr. Downing will not be able to meet the expectations of his customers. I believe Buist's new seedling, Codman's seedling, and the Ross Phœnix, to be more perfect in both organs, than any other varieties, though I have never seen either in fruit. Mr Buist deems his perfect in both organs, in all the blossoms, and I trust he may find further cultivation to confirm his belief. The Ross Phœnix I do not believe always to be so, as I discover in the plate of this fruit an ill-shaped berry. Codman's seedling is spoken of by an eastern horticultural editor as very productive, and the largest of all strawberries. Yet the length and breadth he gives it, would only make it about four inches in circumference, more than one-fifth less than Hovey's seedling. But he admires the *various shape* of the fruit. This speaks volumes. It decides it to be a staminate plant, partially defective in the female organs. Many of the berries will be small and ill-shaped, and a portion of the blossoms barren. But this variety will be valuable to impregnate pistillate plants, and where raised only for family use, to cultivate by itself, for in general I have found the staminate fruit of fine flavor. But in raising on a large scale for market, by a gardener, who will carefully keep down an excess of staminate plants, I believe nine-tenths pistillate, and one-tenth of Buist's seedling, will, on an average of ten years, produce double the quantity of fruit that can be raised on the same ground from staminate plants by themselves, and five times the quantity produced by the present method of cultivation in the eastern states, as I find many private gardens with beds sufficient to supply a large family, not producing a single fruit. N. LONGWORTH.

Newark, N. J., Aug. 14, 1845.

FRUIT GATHERER.

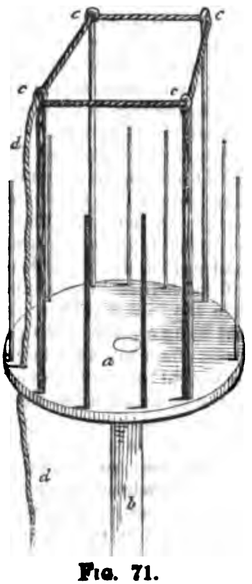


FIG. 71.

THIS instrument is formed of a round block of wood, *a*, 5 or 6 inches in diameter, in the centre of the bottom of which is inserted a handle *b*, which may be made of any desired length, in the sockets, in the rod, or otherwise, as may be deemed best. Near the edge of the block are four holes, into which are inserted as many wires, having little rings at their top *c c c c*, through which passes a string *d*, which, being drawn, brings the tops of the wires together. There are also several smaller wires, or a net work, &c., as may be preferred, around the wires, to retain the fruit when gathered. The operation of the instrument is as follows: Being held in the right hand by the usual handle, and the string laid hold of at the bottom by the other hand, the fruit is inclosed between the wires, and the string being pulled, draws the tops of the wires through it, pressing them close together, thus plucking the fruit on its stem from the bough. The fruit being thus received, and the string being relaxed, it is applied to another apple, &c., and so on, until the whole space, which is large enough to hold two quarts or more, is filled, when it is taken down and emptied. The fruit is thus gathered without being bruised or injured. It is particularly valuable for gathering fruit which cannot easily be reached by hand. For smaller fruit, there may be a tin or cloth casing to prevent it dropping out between the wires.

The above instrument has been patented by Dr. A McWilliams, of Washington, D. C., who has transferred his entire right for the United States, to Simeon P. Smith, hardware merchant, 93 Maiden lane, New York, who will receive orders for the instruments or sale of rights in the various States, &c. The price at retail is from 37 cents to $1, according to the style of execution. It will be exhibited at the Fair of the American Institute this month.

EXHIBITION AND FESTIVAL OF THE MASSACHUSETTS HORTICULTURAL SOCIETY

IT has rarely been my lot to witness a more tasteful and beautiful display of fruits and flowers than was presented in the Boston Horticultural Rooms, on the 17th, 18th, and 19th of September. The spacious hall was filled with dishes of luscious looking fruit, and bouquets of beautiful flowers, while at either end rose some twenty feet from the floor, three beautiful temples, each different from the other, and each displaying a degree of taste and skill well worthy the horticultural fame of our sister city. Robt. Manning, of Salem, exhibited 140 varieties of pears; J. F. Allen, of the same place, some 25 varieties of foreign grapes raised under glass, while numerous collections from other gentlemen, of apples, pears, peaches, plums, and grapes, filled the various tables. The white Doyenne pears were all remarkably fine, entirely free from any defect, and of good size and color. Some fine specimens were shown of Van Mons Leon le Clerc pear, and some other rare varieties. The show of flowers was not equal to the usual display, but I noticed some fine dahlias and pansies, and a beautiful specimen of the Chromatella rose, fully sustaining its character.

The Committee of Arrangements were exceedingly attentive to strangers, and kindly invited me to be present at their festival on the evening of the 19th, in Faneuil Hall. It is difficult to conceive of a more brilliant display than this "old cradle of liberty" presented on that evening. The hall was filled with tables loaded with an abundance of the choicest fruits, and decorated with numerous bouquets of flowers. With the exception of a few sandwiches, nothing in the shape of meat was allowed on the tables. The hall was also highly decorated; the galleries bore the names of eminent horticulturists in ornamented letters, and the columns were twined with wreaths of evergreens and flowers. As the hour approached, the room began to fill with the beauty and intellectual nobility of Boston, and one after another, Daniel Webster, Caleb Cushing, and Edward Everett, took their seats amid the applause of the audience. Among other distinguished guests was the widow of Alexander Hamilton, in honor of whom, when she left the hall, the audience rose *en masse*. When the company were all assembled, the hall presented indeed a brilliant appearance. The "sea of upturned faces," the look of happy enjoyment, of intellectual earnestness, and of zealous interest, rendered it a scene of no ordinary entertainment.

After the fruit was partially dispatched, then commenced the intellectual festivities of the evening, without the aid of anything but water to excite or to exhilarate. Some complimentary allusions to Edward Everett brought him to the floor, amid applause and cordial welcome. His speech was in his most graceful and happy style, and he was followed by Daniel Webster, Caleb Cushing, and others, with interesting and pertinent remarks. A letter was read from Samuel Appleton, expressing his regret at his inability to attend the festival, and enclosing $1,000 for the benefit of the society, the interest to be expended annually in premiums.

I do not remember ever to have passed three hours of greater intellectual enjoyment, and was never more strongly impressed with the highly beneficial and moral effect of horticultural societies. I thought I could detect in the mass of intelligent faces around me, an evident consciousness of the nature of the occasion, a feeling of a purer atmosphere, of an unusual prevalence of mental refinement. I cannot but think, that the springing up of these societies, and the increasing taste for the pure pleasures of horticulture, is one of the best signs of the times.

If intercourse with natural objects, with the works of creation, tends to purify the mind, to increase our taste for the beautiful, and to lead us "to look from Nature up to nature's God," then the increasing establishment of horticultural societies may be deemed a harbinger of better things. It may excite a hope, approaching to certainty, that men will not always be engaged in political strife, or in the eager contest for wealth, but made conscious of their high destiny, will earnestly desire to possess those religious and moral feelings, in the cultivation of which a love of nature in all her forms, is not the least powerful instrument.

Flushing, Sept., 1845. S. B. Parsons.

COLD HOUSE FOR GRAPES.

In this house a fire is never kept. It must be placed on a hill, or in the most airy situation. In such situations only the grapes are never troubled by mildew, and they enjoy a dry atmosphere. In lower situations mildews would ensue from dampness, which can only be dispelled by artificial heat from fires. The house is 24 feet in width, and 17 feet in height at the centre. The form is curvilinear, or in shape of the Gothic arch. The posts on the north and south sides are four feet in height, and boarded or planked to this height with doors opening outward and downward, between the posts, to serve as ventilators. The whole roof on the north and south sides is formed of glass, and with no openings except a range of sliding sashes, at top, extending for two feet only on either side of the ridge pole, from end to end. The glass is set elsewhere on all the roof in sashes of slender stuff, bent and forming continuous ribs from end to end in one connected covering of common glass, placed about nine inches asunder. The ends also are wholly of glass, with doors which slide.

The vines are grown without the house, in a border dug two feet deep and no more, and kept naked when the vines have grown so as to afford full crops. This border is enriched by additions of well-rotted manure, mixed with oyster shells, or a good proportion of other calcareous substances, such as powdered or refuse limestone from cuttings of marble. The grape vines are introduced within the house a little below the surface of the earth. They are pruned and trained by the Thornery mode, which is to prune on the spur system. This consists in cutting in the branches of the vine or main stalk, to within a quarter of an inch of the base, relying for the crop on these almost invisible eyes for the future year.

The operation of pruning is performed as soon as the leaf and footstalk begin to fade and have turned pale, which is generally in the first week of November. The time is important in this system for many reasons; for if performed either too soon or too late, or at any other season or time, this superior system would not secure from failure in the future crop. If the pruning is deferred till midwinter, the sap becomes dissipated and lost in the wood thus taken away, and those eyes at the base become impoverished; or, if pruned before the time named, and while the sap continues still in motion, and the leaves have power to perform their functions, there is danger that those eyes may burst; but by pruning at the only suitable time, the eyes concentrate a due portion of nourishment without bursting, and are ready to start in the spring.

By this system the vines being thrown down in November, are secured from winter by evergreen leaves or moss; and the house being closed, they sleep during the winter months. Early in April, the lower part of the vine, to the height of three feet, is raised and secured to its place, all the top part being bent downward. In about a week after, or as soon as all the lower part or eyes are well broken, another yard of the wood is in like manner raised and secured to its place, until all the eyes below are broken. Thus proceed. It usually requires four weeks to elevate the whole vine to the top, causing all the eyes to break equally from summit to base. Yet were the whole vine raised at once, and secured to its proper place in the beginning, it would be barren in its lower part, and no eyes would break in that part; and from the natural tendency of the sap to rise, there would be fruit only at the summit.

As soon as the vines show fruit, usually half the bunches are cut out; and in regard to the bunches that remain, when the fruit attains to the size of a small pea of the black Hamburg variety, more than half the berries are cut out with scissors. By this mode the fruit has more air; is never liable to rot from being crowded; it ripens better and earlier; the berries attain to a very large and beautiful size, nor is the weight of fruit which they thus produce in the least diminished from this operation. A man will thin fifty bunches; or equivalent to what will produce 50 lbs. in a day; and the labor, compared with the increased value and good quality of the fruit which is produced by this operation, is comparatively of no account. The vines are planted three feet asunder, and in autumn pruned to a single stalk. In spring they throw out the lateral shoots alternately on either side, at the distance of six inches asunder, and but one shoot is allowed to grow from each spur; if more than one start, all are suffered to grow for a time, when the weakest is taken away—and as these throw out their lateral shoots, they are nipped in at the distance of, or leaving one single eye from its base When these laterals are sufficiently grown they are nipped at their tips. William Kenrick

Newtown, Mass., Sept. 15, 1845.

CAUSE OF RUST IN WHEAT.

The rust this season has put an end to all our previous speculations as to the real cause of it upon wheat, viz.: that a luxuriant growth of straw, with a rapid flow of sap, caused by excessive moisture and heat, were the combined causes which produced it. The reverse has been the case in every particular this season: straw short and light, weather cool and extremely dry, and previous to the 9th of July, wheat was filling well; but a few hot days then did the mischief. If the true cause could be discovered, and a preventive or remedy found out, it would be a most valuable acquisition to agricultural science. I have suffered more from it in the course of my farming operations, than from all other causes put together. Please call the attention of your correspondents to this important subject. G.

We do not know the exact locality of our correspondent; but did not the humidity rising from the canal or Genesee river by night, and the hot sun of the next day do the mischief? or was there not a shower or two about the 9th of July, followed by a hot sun? We have known a rain of an hour or two at night, followed by a bright sun the next day, do great injury in the wheat fields. We should be obliged if our correspondent would make still further investigations in this matter, and let us know the result.

AGRICULTURAL CHEMISTRY AND GEOLOGY—No. III.

Q. Why are many of the heaviest clays in the country laid down to permanent pasture?

A. Because the expense of plowing and working these soils is so great, that the value of the grain reaped from them is not sufficient to pay the farmer for his trouble.

Q. How could these heavy clay lands be rendered lighter, and more cheap to work?

A. By draining, subsoil plowing, and by the addition of lime or marl, when it is required.

> The teacher will here explain to his pupils the difference between *common plowing*, which merely turns over the surface soil,—*subsoil plowing*, which only stirs and loosens the subsoil,—and *trench plowing*, or trenching, which brings the subsoil to the surface.

Q. But with any kind of cropping may not a fertile soil be at length made unproductive?

A. Yes, if the crops are carried off the land, and what they draw from the soil is not again restored to it.

Q. How is this explained?

A. Every crop takes away from the soil a certain quantity of those substances which all plants require. If you are always taking out of a purse, it will at last become empty.

Q. Then you liken exhausted land to an empty purse?

A. Yes; the farmer takes his money out of the land, and if he is always taking out and putting nothing in, it must at last become empty or exhausted.

Q. But if he puts something into the soil now and then, he may continue to crop without exhausting it?

A. Yes, if he put in *the proper substances, in the proper quantities, and at the proper time*, he may keep up the fertility of his land—perhaps for ever.

Q. What is a manure?

A. Anything that furnishes food to plants may be called a manure.

Q. Would you bury the sods deep, if you were plowing up grass land?

A. No; I would keep the sods so near the surface that the roots of the young grain could feed upon the decaying grass.

Q. Are any other plants plowed in green for the purpose of manuring the soil?

A. Yes; clover, buckwheat, rape, rye, and in some places even young turnips are plowed in green, to enrich the soil.

Q. Into what kind of soils would you plow in a green crop?

A. Into light and sandy soils, and into such as contain very little vegetable matter.

Q. What are the most important animal manures?

A. The blood, flesh, bones, hair, wool, and the dung and urine of animals, and the refuse of fish.

Q. In what form is blood usually employed as a manure?

A. In this country it is usually mixed up with other refuse in the dunghills of the butchers. In other countries it is dried and applied as a top-dressing, or drilled in with the seed. It is one of the most powerful manures.

Q. How is flesh employed as a manure?

A. The flesh of dead horses, cows, and dogs buried in soil or saw dust, with a little marl, makes a most enriching compost.

Q. In what form are bones usually employed as a manure?

A. Bones are crushed in mills, and then sifted into the various sizes of inch bones, half-inch bones, and dust.

Q. In which of these forms do they act most quickly?

A. They act most quickly in the form of dust, but they do not act for so long a time.

Q. To what crops are they most usually applied?

A. Bones are most profitably employed on light or on well-drained lands, instead of the whole or of a part of the farm-yard manure. When employed without farm-yard manure, they are often mixed with wood ashes, and drilled in with the turnip seed.

Q. Would you raise all your turnip crops with bones alone?

A. No; if I raised one crop of turnips from bones alone, I would raise the next crop on the same field with farm-yard manure alone—if I could get it.

Q. Are bones ever applied to grass lands?

A. Yes; to grass lands that have long been pastured by growing stock, or for dairy purposes, as in Cheshire, they have been applied with great profit. Even when the grass lands are wet, the bones have produced remarkable benefits.

Q. What do bones consist of?

A. Bones consist of glue or *gelatine*, which may be partly extracted by boiling them in water—and of bone-earth, which remains behind when bones are burned.

> Here the teacher may burn a small splinter of bone in the flame of a lamp or candle, and show that though the organic part (the gelatine) burns away, the inorganic part, or bone-earth (*phosphate of lime*) remains behind.

Q. Is the glue or gelatine of bones a good manure?

A. Yes; it is a powerful manure. It assists very much in pushing forward the young turnip plant when this crop is raised by the aid of bones.

Professor Johnston.

ANSWERS TO SHEEP INQUIRIES.

In the May number of the Agriculturist, you solicit answers to various sheep inquiries. I with pleasure answer, as far as I can, respecting my flock, hoping many others will do the same.

I have 600 pure Merino sheep, including lambs. I purchased in Massachusetts ten years ago this season, 111 full blood Merino ewes, descendants from Col. Humphrey's imported flock from Spain. About 40 of these ewes were at the time of purchase from twelve to fourteen years old, the lambs of imported ewes. They were good size, strong constitution, low on the leg, with broad chests, heavy necks and dewlaps, and heavy fleeces, soft and fine.

In June, 1844, my brother A. L. Bingham and myself, purchased of the Shakers in Enfield, N. H., 103 ewes with fleeces on. When we sheared them, we found they had very heavy fleeces of fine clean wool, and that they were well calculated to be profitable sheep to wool growers and manufacturers. The September following, we went to Enfield and purchased the remainder of the flock which we divided from in June, numbering 58 ewes and 12 bucks. The sheep that I purchased at Enfield are descendants of Livingston's importations. Elisha Ticknor, of Boston, bought of Mr. Livingston a part of his imported flock, and hired the Shakers at Enfield to keep them five years. Mr. Williams, of Hanover (a town adjoining Enfield), was employed by Mr. Ticknor, of Boston, to superintend his affairs in that section, and see that these sheep were kept pure. I have Mr. Williams' certificate, certifying that the sheep were as pure blood as those imported by Livingston. I have also the fact from the Shakers, that the sheep I bought of them are as pure blood as those imported. They are what are called the Guadaloupe. They are handsomely formed, of large size, hardy, and possessing great strength. I sold my brother, L. G. Bingham, 24 of those which I purchased in Enfield. William Little, a resident of Virginia, recently from England, spent three or four months in examining the best flocks in the country, for the purpose of purchasing, bought 20 of my Guadaloupe and 20 full blood Merino of my own raising. I have 53 Guadaloupe ewes and 50 lambs.

My mode of management is this: I assort according to age and condition. The oldest by themselves, middle-aged, young ones, &c., into about nine different flocks, summer and winter. My hay is a mixture of timothy, and white and red clover. I feed from twelve to fourteen tons to 100 sheep, which is the principal feed, except for my stock bucks, oldest ewes, and weakest lambs, to which I feed a small quantity of roots, with mixture of corn cob meal. I feed my sheep in the pure air, in racks, and have sheds to shelter them in case of storms. My ewes and rams commence breeding at two and three years of age. The general average of lambs I raise is 97 to 100 ewes. Last year, I raised from 132 ewes, the same number of lambs. There were no twin lambs

I put my buck with the ewes about the 1st December. I put the buck with the ewes about two hours each day, marking him on the brisket with red chalk, and then what ewes I find marked red I remove before putting in the buck again. At the time of lambing they run in the pasture, taking care to have them *sheltered in case of storm*. The live weight of my bucks over one year old, is from 112 to 145 lbs. The live weight of ewes from 85 to 130 lbs. Buck lambs four to four-and-a-half months old weigh from 50 to 70 lbs. I sheared last year 536 fleeces, the average weight per fleece was 4 lbs. 14 oz. The sheep were washed in a stream of clean, running water. I commenced shearing four days after washing. There were 51 yearling bucks, and 37 over one year old. The remainder of the flock consisted of stock ewes, one and two years old, and a few wethers. The average price of my wool last year was 46 cents per lb., with the exception of 334 lbs. of grade wool.

There has been no disease among my sheep excepting the grub in the head, which occasions more deaths among sheep in my opinion than any other disease. The following I consider a sure remedy. To 100 sheep 1¼ lbs. Scotch snuff, mixed with four quarts of water. Throw it up each nostril by means of a syringe. This operation is performed by cutting a hole through a board large enough to admit the nose of the sheep, two-thirds of its length from the eyes. It keeps the head perfectly steady, so that there is no difficulty in performing the operation.

The average weight of my wool per fleece this year, is 5 lbs. 3 oz. It is still unsold. I sheared this year 587 fleeces. Merrill Bingham.

Cornwall, Vt., Sept. 8, 1845.

CHECK REINS, OR BEARING REINS.

Of all the inventions ever made by man this is about the most useless, inhuman, and injurious. It never does good, but always injury. Its only object is to give the head and neck a lofty carriage. But this lofty carriage is merely for show; it has no utility; and if it is the result of the check rein, the show is gained at the expense of useful facility of motion. A horse that will make a show in motion will carry his head full high without a check; he only needs it when standing. To such a horse the inhumanities of the check rein apply only when standing. But the most of horses of whom show is demanded, are required to stand whole hours. And how senseless men are in the use of the check rein! The same horse may be used for both the saddle and the carriage. In the carriage he is check-reined to make a show, and this folly no one thinks necessary when he is saddled. The beauty and safety of a carriage horse consists in his mouth. It should be sensitive, and the horse should press upon the bit. The check-rein deadens the mouth, and prevents the power of the horse from bearing on the driving rein. If the horse go slowly, he can carry his head somewhat high. If the pace be increased the head will be lowered, and the faster the pace the lower the head will be carried. Indeed, a horse cannot go a rapid pace, whether trot or gallop, if he be checked up much, and if he be checked in the least, he cannot go his full pace. When a horse draws, he throws himself forward into the collar by lowering his head, and brings the weight of his body as well as the power of his muscles, to bear. This he cannot do if he be checked. Of course, the check-rein takes from the horse freedom in pace and power in draught. If the horse be checked very high, his power to use his eyes is diminished, and he cannot pick his ground as he would if free. The result of this is that he goes high with his fore feet, or stumbles. It is true, that a stumbling horse may be kept from *falling* by a check, if the check *does not break*. But a stumbling horse stumbles, checked or not; worse with the check, than without it. In many instances it might be advisable to have a check-rein on the horse, not bearing on his mouth, but in such a position that it might prevent his falling in case he should stumble. That it will prevent falling in case of a stumble, will be seen, when it is observed that the horse projects his head forward in falling. The check in such a case throws the weight of the head upon the back near the haunches, which are the power by which the horse recovers himself from falling.

In many sections of the country, among teamsters, and everywhere among stage proprietors, a short rein passing over the top of the harness, is used. But team and stage horses are employed merely for utility, not show. Their task is draught; but this short check-rein prevents the horse from lowering his head and taking advantage of his weight as well as his muscles, to drag his load. The vain attempt of the horse to overcome its evils is shown in the disfigured appearance of the horse's mouth, which is *always* enlarged at the angles or corners, and not unfrequently excoriated and injured. The bearing of the driving-rein, with the team and stage horse, would never produce this. Youatt, in his book on the horse, in his own words, and by quoting Nimrod, a distinguished writer, defends the check-rein (in England called a bearing-rein). The substance of this defence is that there would be no safety in driving without it, for the horse would stumble and run away; and that it keeps the horse's mouth fresh.

Now, neither of these positions is true. The horse does not stumble because of his head being free. Do saddle horses stumble more than coach horses? Indeed, do they not stumble less? The same horse will stumble more harnessed and in a check-rein, than he will with a rider on his back and unchecked; and yet the weight on his back tends to make him stumble. Under the saddle his head is free; in harness and checked, it is not. Nature did not give the horse freedom of motion to make him stumble, but the contrary; and man by the removal of his freedom brings about the result which nature had obviated. Horses stumble on account of bad feet or legs, or bad sight, or accident. Now a check-rein will prevent the action of neither of these causes. Indeed, it increases their power, by depriving the horse of that freedom of motion which would allow him to so command himself as to recover. As to running away, it is not prevented by a check-rein. The check bears upon the horse's mouth so much, that the power of the driving-rein is lost; and if the horse determine to run away, he cannot be restrained, for you can hardly apply more force than he undergoes from the check. When a horse is unchecked, the driving-rein is at right angles to his mouth, and the pressure is on the tongue, which is sensitive in the extreme; when he is checked the pressure is at an oblique angle to the mouth, and is almost wholly at the angles or corners of the mouth, which are less sensitive than the tongue. Now here the check places the driver in a mechanical disadvantage when attempting to restrain a runaway horse; and when at length the mouth is deadened by the check, he cannot be held at all, unless he be unchecked, in order that the driving-rein may bear at right angles on his sensitive tongue. We have for years driven run away horses without check, and were never runaway with yet; and still our friends driving the same horses checked, have been.

Any one who wishes to see the cruelty of the check-rein, has but to look at a horse reined up while standing. He tosses his head and twists it from side to side in agony. Free his head, and he is at once at ease, and quiet.

We rejoice to see that in all natty turn-outs, which gentlemen themselves drive, the check as well as the blinder is disused. Here fashion has taken the lead in utility, and will in the end do a most humane service to all horses, whether of the coach, the stage, the waggon, or the cart. A. S.

New York, Sept., 1845.

HARDHACK

Your correspondent Tyro has a communication in your August number, respecting a shrub which he called hardhack (*Spirea Tomentosa*). Eaton, in his Botany, describes a shrub to which I have no doubt Tyro alludes, as follows: Class xii., Order 5: Genus *Spirea*; species *Tomentosa* (steeple bush, purple hardhack). Flowers of a beautiful red, or purple color, flowering in July; stem woody, leaves lanceolate, unequally serrate, downy beneath, racemes in a crowded subgranicled spike.

It is an indigenous shrub, two or three feet high; grows most naturally in low, moist ground, and where such land has been cultivated for some time, and then turned out for pasture, flourishes with such luxuriance as to prevent any other vegetation growing to advantage. The best mode of eradicating it is with the plow, and manure, although I have no doubt that sowing the ground with salt, say four or five bushes to the acre, in the spring, and pasturing with sheep, will destroy the greater part of it, as well as other noxious shrubs.

All parts of the hardhack are highly medicinal, although the root is least valuable. The taste of the plant is bitter and astringent. Water extracts its sensible properties and medicinal virtues.

This species of Spirea, according to the American Dispensatory, is tonic and astringent, and may be used in diarrhœa, cholera infantum, and other complaints, in which astringents are indicated. In consequence of its tonic powers it is peculiarly adapted to cases of debility, and from the same cause should not be given during the existence of inflammatory action or febrile excitement. It is said to have been employed by the aborigines of our country, but was first brought before the notice of the medical profession by Dr. Cogswell, formerly of Hartford, Ct. It is said to be less apt to disagree with the stomach than most other astringents. The form in which it is best administered is that of an extract, prepared by boiling the leaves, stem, or root, and evaporating the decoction. The dose is from five to fifteen grains, repeated several times a day. A decoction prepared by boiling an ounce of the plant in a pint of water, may be given in the dose of one or two fluid ounces.

Saml. D. Carver, M. D.

Farmington, Ct., Sevt. 1, 1845.

SMITH'S CORN SHELLER.

There being a considerable demand for my shellers this fall, I have thought it advisable to write you a few words in regard to their use. The teeth are the only part that need renewing, and these should not be suffered to wear down, so as to expose the covering of the cylinder. New teeth can be added by setting new rows of them between the old ones, to occupy their places, as these would continue to protect the covering of the cylinder and could do no harm. I think it would be advisable for you to keep a quantity of such teeth to meet demands, as they are certain to wear down, and the covering of the cylinder as certain to fail unless the teeth are renewed and kept at about their present height. Purchasers should keep the cylinder coated with durable paint, as it would not only protect it against rust and decay, but against friction also. This could be accomplished by having two machines, so that while one was at work, the other could be repaired and painted.

F. N. Smith.

Valatia, Sept. 22d, 1845.

A cut and complete description of the above may be seen on page 343 of our third volume. It is capable of shelling 300 bushels of ears in an hour, but 150 bushels may be considered as a fair average. It is much liked on the larger plantations of the south. The price is $50, and they may be seen at our agricultural warehouse, 187 Water street.

HUDSON RIVER MARL.

I send you herewith a specimen of marl found in a pit on my farm. Upon examination you will find it composed of shells decomposed into lime, decayed leaves, wood, and other substances, which cannot be perceived except by chemical analysis. This pit covers about one-third of an acre, and seems inexhaustible. The surface is composed of pulverized muck, from one to three feet deep, then commences the marl. The first layer is reddish brown, the next a greenish color, intermixed with quantities of small shells, then comes a limestone rock. The marl in different parts of the pit is of various colors. One specimen I send is composed of white marl, which will effervesce in vinegar. This, I suppose, has a large per cent of lime.

I am now getting it out, and haul seventeen cart loads in a day, employing two men with the team. I have used it on my farm with great success, mixing it with barn-yard manure, about one-third of the latter with two-thirds of marl and muck, which I consider the best mode of using it. I sometimes put it in heaps in the fall, the frost pulverizing it finely like ashes by spring, when it is easily spread on the land.

In the fall of 1841 I got out about 300 loads; some I mixed with barn-yard manure, and some was used in the pure state. That mixed with manure I could perceive the benefit of immediately; that in a pure state was put near a wood, and consequently was much shaded; notwithstanding this the grass came in well, and was better than ever before. I plowed the field last spring for corn, and found a quantity of marl still in the ground, which shows plainly that it is a lasting manure. Every plowing pulverizes and prepares it as food for plants. That which was mixed with manure could not be seen last spring. The probability is, that the manure decomposed it and prepared it sooner for the plants. I also send a specimen of that which has been in the ground since 1841. I should like, if convenient, for you to send a specimen of this marl to the Farmer's Club.

John Van Wyck.

New Hamburg, Dutchess Co., Aug. 15, 1845.

We sent specimens of the above marl to the Farmers' Club. It abounds in valleys on both sides of the Hudson river, from the Highlands up to the Catskills. It is usually overlaid with the richest kind of muck, to a greater or less depth. The marl varies greatly in value; from 5 to 80 per cent. of lime has been found in it.

AN EASY METHOD OF INCREASING MEMBERS OF AGRICULTURAL SOCIETIES.

Whilst the various agricultural societies are making their efforts to increase the number of their members, and to collect the necessary funds for their operations, it may be well to suggest a plan mentioned to me yesterday by a gentleman from Chatham, Canada West, and which the society of that neighborhood has found particularly successful. Instead of soliciting contributions for which the payer receives only the privilege of exhibiting and of membership, the agent of the society asks a subscription to an agricultural periodical, which is equal ordinarily to the amount asked by them for membership, but which the publisher sells to the society for about half price, on account of the large quantity taken, and with a benevolent regard to the agricultural improvement. Many thus contribute who have nothing to exhibit, and would otherwise refuse to do so—the paper becomes widely circulated—a taste for agricultural excellence is formed, and every farmer subscribing receives in actual value at least five times the amount he pays, to say nothing of the entertainment and intelligence which are derived both by himself and family.

We like our correspondent's suggestion, and will say to agricultural societies, that they will find us ready to make a very liberal deduction on all volumes of this periodical ordered by them.

FERMENTED FOOD FOR CATTLE.

I am desirous of preparing food which has been ground, to feed milch cows the coming winter, and believing that souring it is equally valuable as boiling, and much the most economical, I wish to inquire if the editor or any of the numerous readers of the Agriculturist can inform me how I can produce fermentation in a barn during the winter months, without endangering the premises with fire. I propose making a tight-boarded room to keep the vats, in which the food is to be mixed, but this will not keep the mixture at a sufficiently high temperature to ensure fermentation. I can effect the object by using scalding water, as with a little of the old mixture fermentation would be produced, and carried forward to a sufficient extent, before the temperature in the vat would be sufficiently lowered, to arrest it. But how can I use fire to heat my water without endangering the burning of the barn? It has occurred to me, that I might use a vat solely for heating the water, in which an air-tight, right angle flue shall be adjusted, surrounded with water, in which flue a grating may be placed, near the base, to be fed with charcoal from the top, which rises perpendicularly above the water. The horizontal base to open on one side, where it is made water tight at the point of insertion in the vat. This admits of lighting the fire and supplies the draught. The front or lower entrance may be secured by a partial and total damper, and a pipe led through the roof might prevent all danger of fire. Yet I am apprehensive of danger in careless hands; in what way can I avoid all danger, and yet ferment my meal during winter? As I think nearly one-half the meal may be thus saved, and I contemplate using 1,000 bushels per season, you may justly think I look for an answer with no little anxiety. R.

To CURE A STIFLED HORSE IN TWO HOURS TIME.—Take one gallon of urine and put therein a small handful of junk tobacco, boil down to one quart; then add two ounces of oil of spike, one ounce of oil of amber, two spoonsful of spirits of turpentine, and two spoonsful of honey. Put it into a jug, and cork it tight for use.

Process of Application.—Rub the stifle bone hard with the mixture fifteen or twenty minutes; then dry it in thoroughly with a red hot fire shovel, then ride the horse forth and back one hundred rods. Repeat the above two or three times, and the cure will be effected. J. B. GODDARD.

Norwich, Ct., Sept. 15th, 1845.

OVERSEERS AT THE SOUTH.—I commenced the year with three managers, every one of whom I turned off successively, because I could not get them to enter heartily into my views, and attend to details. Overseers are among our greatest curses, and not only abuse our negroes, kill our mules, and ruin our lands, but they uniformly set themselves against any improvement that is attempted, and in most cases will lose their places rather than permit any important experiment to succeed which they can thwart. They have no interest in doing so—it is merely stupidity and perverseness, to which is usually added unbounded conceit and obstinacy. What could you do with such agents at the north? Depend upon it that it is not our negroes, but our white managers, who stand in the way of our improvement. For the month of August I had no white man about me; I relied altogether on my negroes. I never had as much work done in a month, or as well done. Everything was to my satisfaction, and the negroes seemed to comprehend and obey my orders better than any overseer I ever had. S.

South Carolina, Sept. 9th, 1845.

BENEFITS OF THE DROUTH.—The drouth still continues here, and although it has reduced the crops, and produced much inconvenience and loss, yet it has not been without compensating advantages, for I believe it has rid us of many destructive insects. I have heard nothing of the potatoe rot in this region, nor have the wheat-fly, the curculio, the locust-borer, or sycamore-fly made their usual ravages. I have no doubt you will agree with me that this world is more wisely governed than it may at times appear to be by us poor, short-sighted mortals. R.

Red Hook, Sept. 14th, 1845.

HORTICULTURAL SHOWS.—These are increasing in every quarter, and some of them are of great interest. We would particularly instance that held at Newark, New Jersey, the past month, as well as the one at Flushing, Long Island. The fruits and flowers at both places were in great variety and profusion, and several of them entirely new, in this country.

WESTERN CALENDAR FOR OCTOBER.

LATE in September, or early in this month, the graziers of the west cut up their immense crops of corn, and put it in shock for feeding their numerous herds of large bullocks through the winter, preparatory to their driving them to market the succeeding spring, or in the fall thereafter, according as they shall find it most advantageous. A view of *hundreds* of these fat bullocks in a gang, feeding upon the luxuriant and extensive blue-grass pastures of Kentucky, during the summer next after they have been "full fed" for one winter, is a sight worthy to behold, even by those who have seen "the far-famed falls of Niagara."

Like other crops, corn must be *ripe* before it is cut up. If cut when green, the fodder is less valuable, and the corn is greatly injured. Corn which was planted early, will be fit to gather for immediate feeding about the beginning of this month; and that period is the proper time for putting up hogs to fatten, which thrive best on new corn. But hogs that are intended to be driven on foot to eastern markets, or to the south, must be fattened much earlier. They are usually fattened by turning them into corn-fields which were planted very early. The corn in these fields will be fit to turn upon about the first of September, and the hogs will be ready to drive in six weeks, if they shall have been well kept on good clover during the summer, assisted by oats and rye, fed off in the field. This has reference to Kentucky. Farther north, corn comes on a little later, and more to the south, still earlier.

If any part of the tobacco crop is still in the field, it should be housed early in this month, as we may usually expect frost sufficiently severe to kill tobacco by the tenth of October, in latitude 39°. But it sometimes holds off a week or two longer, and occasionally happens as early as the first of the month. Farther north, frost may be expected sooner, and each tobacco planter must judge for himself how long he can risk leaving a part of his crop unhoused. If any part of the wheat crop remains to be sown, the earlier it is put in the better. Rye should also be sown in this month, unless intended for pasture, in which case it would be much better to sow late in August, or early in September.

Apples should be gathered in this month—some of the earlier kinds late in September. The best method of keeping them is to put them in well-made, *seasoned* flour barrels, filling the interstices with perfectly dry *sifted* sand, taking care to sprinkle a little next to each head, and between each layer of apples. They will thus be kept from air and moisture. Some hemp should be spread about the middle of this month, for early breaking. A. BEATTY.

Prospect Hill, Ky.

Ladies' Department.

MAKING BUTTER.

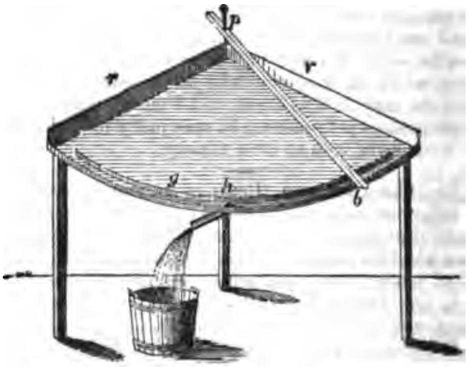
I AM glad you express the opinion, in the leading article of your August number, that "good housewives are never tired of reading upon subjects of *this* kind," for I have just prepared a short paper on the best way of *working* butter, which, if you think proper to insert, I should not like my fair friends to think it one too much.

In giving directions for making butter, there is one omitted, without which all the others are literally of no avail; I mean the care of the cream. The milk should never stand more than forty-eight hours, for if properly treated, all the oily particles will have risen by that time. When the milk is skimmed every morning and night, the cream in the crock must be thoroughly stirred with a wooden spoon, before and after each addition. If this is neglected, there will be a deposite around the sides which will contract and impart a stale taste, that all the after care can never remove; and this is, I believe, the secret cause of the bad flavor of half the butter by which our markets are disgraced—fit only for the tables of those West Indians, who, it is said, prefer butter that has some taste, some smell.

The directions given in the article above alluded to, are, I think, very good. The London method I do not like. I would use no saltpetre; no pickle; neither annato nor carrot juice, as color is of little importance if the flavor be good; and boiling water gives an oily taste, and so do the hands, which should never touch the butter. Working a second time, after the salt has lain in it for some hours, has a good effect, as it frees the butter from all watery particles, and gives it almost the consistence of wax. For working butter effectually, I know of nothing equal to a simple machine which I will attempt to describe, and which any man who understands the use of tools, can make in a few hours. It may not be new to you, but as I have not seen any notice of, or allusion to it, in your former numbers, I venture to send it, accompanied by a rude drawing, to make my description more intelligible. It is much valued where it is known for the complete manner in which it operates, and the amount of labor and time saved—a lad of twelve or fourteen years being able to work from 40 to 50 pounds at once, in one third the time required by the ordinary process. Some of the finest butter taken to the Baltimore and Philadelphia markets is made upon it.

The machine is a stout oak three-legged table, 2 feet 8 inches high in front, by 3 feet behind. The top a segment of a circle of about 2 feet 6 inches diameter, with a rim *r*, 4 inches high on the two straight sides; a groove *g*, an inch or more deep, around the front to catch the butter-milk, with a hole and spout *h*, in the groove, to carry it into a pail beneath; a heavy bar *b*, 2 inches thick, moving freely on a pivot *p*, both horizontally and vertically.

The butter must be spread upon the table, and pressed firmly with the bar, moving from side to side, and back again—then turned with the paddle, and the pressure repeated until all the buttermilk and water have run off, after which it can be printed for market, or packed in kegs for exportation. If it is to be sent to a hot climate, it ought to be closely packed in stone jars, of not more than 12lbs. each, covered with a linen rag, upon which put a layer of salt, at the least an inch thick, cork the jars, cover closely with coarse cotton or linen cloth, and pack the jars in kegs, an inch or more larger every way than the jars, with pulverized charcoal rammed between and over the top. I have known this done, and when unpacked in Liberia, the butter was perfectly good, and hard enough to be spread with a knife—at least so said those who ate of it.



A BUTTER-WORKER.—FIG. 72.

No dairy-maid in our part of the country need be told that this table must never be used for any other than the specified purpose. She would be almost as much affronted as if you told her to *wash* her milk pail or *strain* the milk. This reminds me of Miss Edgeworth's account of the Irish method of making butter, which I will condense for the amusement of those little girls who have not had the good fortune to read her delightful story of Harry and Lucy.

She tells of a visit the children made to a dairy, where the maid put three gallons of cream into a churn, and after churning for three quarters of an hour, produced *nearly* three pounds of butter. This was pressed to get the milk out, and then often washed in fresh waters, after which it was laid upon a flat dish, and cut into small pieces with a wooden slice, in order to have the cow's hairs picked out which had fallen into the milk. Many of these hairs stuck to the edge of the slice, and the rest she picked out with her fingers! ****

This "picking out" is an improvement upon the method said to be practised in one of the Western States, from whence the story is told of a traveller who requested his hostess to send the butter and the hairs to his table upon separate plates, as he preferred mixing them for himself.
E. S.

Eutawah.

BLEACHING STRAW.

Rye straw only is good—wheat is too brittle when dry. In the Eastern States the straw is fit for this use when the grain is fully formed, in Pennsylvania when it is in blossom; therefore the criterion must be, the *state of the straw*. This will require some judgment for the first year; after that, experience will be the best guide. My way is to walk round the rye field when the straw has attained its full size and the blossom has faded, and choose that which feels firm, yet yields without cracking, to the gentle pressure of the thumb and forefinger. Have two or three common sized bundles of this cut as near the ground as possible, chop off the heads with the straw cutter have ready a quantity of boiling rain or spring water, lay the straw smoothly, with the root ends all one way, in the horse-trough, and pour the boiling water upon it by buckets full. Keep it under for ten minutes that every part may be thoroughly scalded; then spread it on boards where the sun will shine upon it for the greater part of the day. The grass will do to spread it on, if the weather is very *dry and hot.* Turn it twice or thrice, and bring it in before the dew falls. If any of it remains *green* after the first day's bleaching, it must be scalded again. Two or three days' exposure will be sufficient. Each straw must then be cut with a sharp knife above and below each joint, which will strip off the leaves, and tied up in little bundles. These are now soaked for a few minutes in very strong soap suds, and laid on a cloth in a sieve to drain. Take an old barrel without a top, and place an earthen or iron pan full of burning charcoal at the bottom, and when the water has drained from the straw, sprinkle pounded brimstone on the coals, put the sieve on the top of the barrel, cover the whole closely with a wet blanket doubled, to keep in the smoke, and leave it thus until it is quite cold. This process is to be repeated when the braid is finished, before it is made into bonnets, and renders it beautifully white and pliant. When it is quite dry it must be nicely assorted. Put all the small straws by themselves, to be braided whole for the men's hats. Tie each parcel up neatly and put them, closely covered from the air, in a dry place, where they will keep well for years. When you wish to begin your braid, dip as much straw as you are likely to use, in pure cold water, split each one by running your scissors through it from end to end, and cut off as much as appears discolored and harsh; throw this away, and reserve for use only the pliant, white part which was covered by the sheath of the leaf.

Straw-splitters may be bought at almost any hardware store in our principal northern and eastern cities, and an intelligent girl will readily learn the use of one, without other direction than to soak the straw in pure cold water for a few minutes before she splits it. For braiding she must have a teacher, but I believe there are few neighborhoods in which there is not at least one person who understands the art.

E. S.

TRANSPLANTING.

For the Girls.—My young friends must remember that October is the last month for planting shrubbery, seedlings, and such as have been grown from cuttings and layers: if put off much longer they may lose their pets, though for large shrubs and hardy trees, any time will do while the earth is mellow enough to dig.

Planting is a much more delicate operation than people generally think. They thrust a tree into a hole with as little care for its life as if it were a post, ram the earth about the roots, and wonder it does not grow! The greater wonder would be if it did.

In digging up a plant great care should be taken not to injure the tender fibres, nor the *collar,* as it is called—that is, the point from whence spring the ascending stem, and the descending roots. It is easily distinguished, even by an unpractised eye. If any of the roots are torn by the spade, or incautious moving, or are in an unhealthy state, cut them off carefully with a sharp knife. Make a hole larger and deeper than the plant occupied before it was taken up; put some well rotted manure, mixed with garden earth and sand, at the bottom, place the roots upon it, and spread them out as naturally as possible; then sprinkle on some pulverised soil, and when the hole is half full move the plant gently a few times, and fill up with water. When this has sunk away throw in lightly the remaining earth, press it gently but firmly over the roots, and hill it up around the stem. Too much care cannot be taken to have the collar above ground, for the plant will sink as the earth settles, and if it do not die, it will never be as healthy as if properly planted, and is almost always short lived. If the weather be warm and dry, throw some hay or straw loosely over the roots to prevent evaporation; but water only when absolutely necessary.

In planting a tree, one should hold it upright in its place, whilst another sprinkles in the earth and water. If it requires support, drive a stake firmly into the ground before you fill up the hole, as near the stem as possible, and tie it with a hay rope or woollen string, and put some moss or tow behind, to prevent injury to the tender bark; and when all is done trim away any straggling branches to make the plant of a handsome shape. Trimming is best done in the autumn, for as the sap runs during the greatest part of the winter, all the wood that is cut off in the spring takes away so much strength which would have remained in the lower part, had the ends of the branches been cut away in the autumn.

E. S.

Eutawah.

To Destroy Cockroaches.—Take about a pint of treacle, and put it in a basin, mixing it with about the same quantity of hot water; set the basin on the floor in some part where they frequent; get about twenty cuttings of lath, about fifteen inches long, and set them round the basin, sloping from the floor to the basin's edge, and projecting over the edge about an inch; the beetles, attracted by the smell of the treacle, will come out so soon as the apartment is dark and quiet, and will crawl up these pieces of lath to the point and drop over, and cannot of course get out, the edge of the basin being so smooth. I have known so many as seventy killed in one night by this mode. The beetles being thrown out, the same basin of treacle and water will do until they are all destroyed.—*Correspondent.*

To Preserve Eggs.—A pint of lime and a pint of salt, mixed with a pail of water, will preserve eggs for any reasonable time. My wife read it in an old almanac, and tried it last year; the eggs were as fresh at the end of six months as if right from the nest.—*Ib*

To Clean Windows.—A very simple but excellent method of cleaning windows is now coming into general use, possessing many advantages over the old system of using whiting, etc. The window is first dusted with a bunch of feathers, or a dusting brush, and when all the dust is thoroughly removed, place a bowl of boiling water at the base of the window, the steam immediately covers the glass, which is removed by a wash-leather, and finished off with another one clean and dry. This saves time—prevents that cloudy appearance left by whiting, and produces a more brilliant and durable polish than any other process now in use.—*Ex. Paper.*

Boys' Department.

THE HISTORY OF THRIFT AND UNTHRIFT.

(*Continued from page* 258.)

Their Success.—In five years after he was married and commenced farming, Tom had actually become "fore-handed" enough to buy a farm near him, which was naturally very good land, but had "run down" from the shiftlessness of the former owner; for which he paid $2,000 in cash, out of his own earnings, which were pretty much all used up by the former occupant, in paying off executions and debts against him, and he had just enough left to carry him to Michigan, to begin the world at forty, where Tom began at twenty-one. A mortgage of $1,000 still due on the place, he assumed to pay to the merchant in the village, who had taken it some time before in payment of all old scores, including costs of some $200 which had accumulated against the debtor.

Josey had a first rate farm, too, which had been given to him by his father, who also stocked it with all the horses, cattle, sheep and pigs, Joe wanted, but Josey, "somehow or other," hadn't met with very "good luck," as he called it. Indeed 'twas some time before Josey decided he would take to farming at all.

Josey's Professional Inclination.—His father and mother before him, had been in a good deal of quandary, whether their son, whom they thought of as all parents generally do, especially if they have but one, was not rather too good for farming. He used to loiter about the bar-room when his father tried the suits brought before him, and he had picked up a good many legal phrases from the smart young attorneys who used to spout there. He could tell what was "a cause of action," whether the "*case* should be brought as an action *tort*, an action *trover*," or simply, "as an action on the *case*." But though often thinking about it, and rather urged by his ambitious parents, he found so many hard words in looking into Blackstone, the *Pons asinorum* of all legal aspirants, that he concluded he wouldn't attempt it. His friends afterwards thought it a great pity, as if he had only got into practice, the law would give him his fees, whether he rendered any service to his client or not. Other friends equally lamented he did not take hold of medicine, for which he at one time had quite an inclination, but from which he was deterred by an indolent and unsuccessful attempt at mastering the technical names of diseases and their remedies, in that horn-book of young Galens, the Dispensary; as they said, "if he only got a run of custom, he was sure to pocket his fees, as no man living could tell what kind of treatment or medicine he administered. If his patients got well in spite of the medicine, he was a first-rate doctor, and if they didn't, 'twas the fault of the disease; and as to a conviction of mal-practice, there would be no chance for that, as the case must be decided by the Doctors themselves; and although they might hate one another bad enough to ensure justice to a third and injured party, yet if they gave against their brother quack, they would be the losers, as it would tend to unsettle confidence in *the profession*, which was of all things to be avoided. But if he went to farming, and didn't plant and sow right, and do his harvesting at the proper time, or let his cattle die of disease or neglect, he would have to pocket the loss himself, as the law didn't compel his customers, *in that case*, to pay him for what he didn't sell them." In short, before they were thirty, Thrift and Unthrift had at last got on the same platform or level, for Tom had by this time paid for his farm, and had it well stocked, and was entirely out of debt.

Thrift's Farming.—But the see-saw did not stop when it brought them to this position, for Tom kept going up, while Josey kept going down. His father could not help him any more, as he had only enough left to carry him and his wife through the world, while Tom had the prospect of getting some money from his father's estate, who had lately died and left a snug property. But the great difference between them consisted in their own management. Thrift's plowing was always done in the right time, his crops were in early, and they were harvested as soon as ready to cut; his manure was always carried out and spread on the ground; his orchards were well planted and grafted with the best fruits, and he soon had the choicest to sell, which being better than his neighbors, always commanded a high price and ready sale, besides supplying his own family with all they could use. The orchard was indeed one of the most profitable things of his farm. His tempting ripe peaches, with bread and milk, made a luscious meal for himself and his little ones. The rich sweet apples and baking pears, when cooked without any addition of sugar or molasses, were "sauce" good enough for a king; and it is hardly going beyond the truth to say, that it saved him a barrel of pork a year, besides giving him a luxury which any one might envy. His garden was always the best, for he chose a good spot for it, manured it abundantly, had his seeds in early, and what was best of all, he usually spent a half hour in it with his hoe before the dew was off, by which he secured an early rapid growth; and his garden made up a third of his summer's living, besides giving good vegetables through the winter. His cows were well chosen, and well fed, and were another great help to his living. Besides this, his wife made butter and cheese enough to buy all the groceries, which did not come to much, as they made their own maple-sugar and molasses, used little tea and coffee, and no spirits or wine. His sheep yielded good fleeces and lambs. The last gave them choice mutton whenever they wanted fresh meat, and besides, they occasionally sold some to the butcher, and having got a good name for fine lambs, they always brought a large price. His wife made her own stocking yarn and home-made flannel, and put out the remainder of the wool on shares, to be worked into satinets, fulled cloth, and flannel, so that their half not only furnished what they wanted for their own use, but gave them some besides to pay their hired men. His fences were always up, and he never suffered from the depredations of his own or neighbors' cattle. His children were punctual at school, and the whole family as punctual at church. All were neat and tidy, for Mrs. Thrift was as busy and managing within, as her husband was without, and as was to have been guessed, Thrift made rapid progress in "getting on in the world."

Indeed his was a happy lot,
Plenty and peace within his cot;
And all without so good and fair,
He knew not what was cross and care.

[*To be Continued.*

FOREIGN AGRICULTURAL NEWS.

By the steamship Britannia we have our regular file of European journals to September 4th.

MARKETS.—*Ashes* dull. *Cotton* had advanced ⅛d. per lb., chiefly in the low and middling qualities, and was brisk of sale. The stock on hand at Liverpool on the 1st September, was 998,000 bales, against 938,000 same period last year. *Flour* excessively dull in consequence of the favorable prospects of the harvest. *Beef* an improved demand. *Pork* dull. *Lard* scarce. *Cheese* active and the market quite bare. *Rice* in fair request. *Tobacco* firm. *Tallow* scarce with an upward tendency. *Wool* large sales.

Money continues plenty at 2½ to 3 per cent. notwithstanding the gigantic railway speculations.

The Weather was propitious for the grain harvest. The rot in the potato crop was extending rapidly. In France the harvest was good, other parts of the continent quite unfavorable.

New Species of Rice.—Mr. R. Clarke, the senior assistant surgeon to the Colony of Sierra Leone, has lately brought into notice a grain called "Fundi," or "Fundungi," cultivated by industrious individuals of the Soosoo, Foulah, Bassa, and Joloff nations, by whom it is called "Hungry Rice." It is a semi-transparent cardiform grain, about the size of a mignonette seed; the ear consists of two conjugate spikes, the grain being arranged on the outer edge of the spike. "The ground," says Mr. Clarke, "is cleared for its reception by burning down the copse wood, and hoeing between the stumps. It is sown in May or June, the ground being lightly drawn together over the seed with a hoe; in August, when it shoots up, it is carefully weeded. It ripens in September, growing to the height of about eighteen inches, and its stems, which are very slender, are then bent to the earth by the mere weight of the grain. When cut down it is tied up in small sheaves, and placed in a dry situation within the hut, for if allowed to remain on the ground, and to become wet, the grains become agglutinated to their coverings. The grain is trodden out with the feet, and is then dried in the sun, to allow of the more easy removal of the chaff in the process of pounding, which is performed in wooden mortars. It is afterwards winnowed with a kind of cane fanner on mats. In preparing this delicious grain for food, it is first put into boiling water, in which it is boiled for a few minutes: the water is then poured off, and the Foulahs, Joloffs, &c., add to it palm oil. butter, or milk; but the Europeans and negroes connected with the colony, prepare it as follows:—To the grain cooked as above mentioned, fowl, fish, or mutton, with a small piece of salt pork, for the sake of flavor, is added, the whole being stewed in a close saucepan. This makes a very good dish, and thus prepared resembles 'kouskous.' The grain is sometimes made into puddings, with the usual condiments, and eaten either hot or cold, with milk. By the few natives of Scotland in the colony it is dressed as milk porridge. This grain could be raised in sufficient quantities to become an article of commerce; and I have no doubt would prove a valuable addition to the list of light farinaceous articles of food in use among the delicate or convalescent." Before preparation the grain is said to be of a clear dull brown color, and when cleaned from the husks it resembles very fine millet.—*New Farmers' Journal.*

Increase of Ergot.—Ergot has increased to an alarming extent in this district, and Dr. Latham states, he has found it upon eighteen different grasses where it did not prevail before. The effect of ergot upon the human frame is dreadful, and we are informed by Professor Henslow, that people have died in a parish not far distant from his rectory in the most deplorable condition from subsisting upon ergotted-rye bread, their extremities having gangrened and rotted off. Whether the disease at this time prevailing amongst the cattle, sheep, and swine is caused by ergotted food, is, I think, a subject worth inquiry. In the early stage of the disease the mouth is affected, and ultimately the extremities gangrene and rot off; and the ailment among the cows, in milk, appears to be of an uncommon and unusual nature, in many instances proving fatal. Amongst the eighteen different grasses Dr. Latham found to be ergotted, are the *lolium perenne*, or perennial rye-grass; *hordeum pratense*, or meadow-barley grass; *triticum ripens*, creeping wheat, or couch grass; *alopercurus pratensis*, or meadow fox-tail; *phleum pratense* or Timothy-grass; *dactylis glomerata*, or cock's foot, were found much affected, and which are most generally known to practical farmers. Ergot, I am aware, is not generally understood, and, indeed, I believe there are many farmers who are not aware the produce of their farms is liable, or subject to such an evil. Wheat, in some districts, is often ergotted in a greater or less degree, and it has been ascertained. by experiment, that the sporules might be conveyed by water, and that plants, upon which this ergotized water had been employed, became diseased.—*Ib.*

Increase of the English Agricultural Society.—At the termination of its first year, in 1838, the members of this society were 690 in number, its income £1,128. Its present list of members is nearly 9,000, and its funded property above £9,000.

Agricultural Chemistry in Schools.—At a meeting of the committee for promoting the introduction of instruction in agricultural chemistry into schools, Mr. Aitchison, of Drunmore, was called to the chair. Mr. Milne, detailed the progress which had been made in carrying the objects of the committee into effect. There were now sixty-eight schools in which agricultural chemistry was taught, and a great stimulus has been given to their exertions by the General Assembly of the Church of Scotland, recommending the schoolmasters under their superintendence to teach this new branch of education. Professor Johnston moved that a cheap class-book on agricultural chemistry should be drawn up for the use of the scholars. Mr. Stephens agreed to assist in the compilation. The motion was unanimously agreed to.—*Dumfries Times.*

To Destroy Weeds on Gravel Walks.—Put about an ounce of arsenic in a gallon of hot water, and pour it through the nose of a pot on the walk, or pitching.

Another Method.—Having seen in your columns, a plan for destroying weeds on walks, or pitching, with arsenic, I beg to mention one which, I think, is more economical, and which I have proved to have the desired effect (on pitching). I have a large yard, which for years has been very much neglected—it was a complete mass of thistles, dandelions, couch, hog-weed, convolvulus, &c., in fact, it was covered to that degree, that you could hardly tell whether it was pebble or not. To keep men weeding seemed useless, so having a large copper, containing (when full), about 60 gallons, I had it filled with water, and when the water boiled, I threw in about 50 lbs. of salt (not quite a pound to the gallon); this I had put on while boiling, and the result has been beyond my expectation; the weeds being large I had them pulled up. This was done in the spring of last year; in autumn I found them springing up again, I then had the yard done with a solution not so strong as the first. This, too, proved effectual, and I had it done once this spring as a preventative, and I have had scarcely a weed during these last 18 months. This method not only eradicates the weeds, but gives to the pebbles the bright appearance of those by the sea-side. The reason why I mention this is, that I think the arsenic dangerous, and the salt is so much cheaper. I have not tried it on gravel walks.—*Gard. Chron.*

Consumption of Guano in Great Britain.—In 1841 this amounted to 500 tons of Peruvian; in 1842, to 2,000 tons; in 1843, to 5,500; in 1844, to 10,450 of Peruvian, and 16,000 of African; 1st July, 1844, to 1st July, 1845, to 124,410 tons of Peruvian, and 131,240 of African!

Blister of the Peach-leaf.—This is said to arise in consequence of an over supply of moisture to the roots.

Ice Houses.—A short time before I left England, you published in the Gardeners' Chronicle a number of letters and plans for the construction of ice-houses, but, as far as I can remember, nothing at all resembling the Chinese one, which I shall now describe to you. On the left bank of the Ningpo river, proceeding upwards from the town and forts of Chinghai, and in various other parts in the north of China, I have met with these ice-houses. When I inspected them for the first time, last winter (1843), their construction and situation differed so much from what I had been accustomed to consider the essentials of an ice-house at home, that I had great doubts of their efficiency; but at the present time, which is the end of August, 1844, many of these houses are yet full of ice, and seem to answer the end most admirably. You are probably aware, from my former descriptions of the country, that the town of Ningpo is built in the midst of a level plain, from 20 to 30 miles across. These ice-houses stand on the river sides, in the centres of this plain, completely exposed to the sun—a sun, too, very different in its effect from what we experience in England—clear, fierce, and burning—which would try the efficiency of our best English ice-houses, as well as it does the constitution of an Englishman in China.

The bottom of the ice-house is nearly on a level with the surrounding fields, and is generally about 20 yards long by 14 broad. The walls, which are built with mud and stone, are very thick, 12 feet in height, and are, in fact, a kind of embankment rather than walls, having a door through them on one side, and a kind of sloping terrace on the other, by which the ice can be thrown into the house. On the top of the walls or embankment a tall span roof is raised, constructed of Bamboos thickly thatched with straw, giving the whole an appearance exactly resembling an English haystack. And this is the simple structure which keeps ice so well during the summer months, under the burning sun of China! The Chinaman, with his characteristic ingenuity, manages also to fill his ice-house in a most simple way, and at a very trifling expense. Around the house he has a small flat level field, which he takes care to overflow in winter before the cold weather comes. It then freezes, and furnishes the necessary supply at the door. Again, in spring these same fields are ploughed up, and planted with rice; and any water which comes from the bottom of the ice-house is conveyed into them by a drain constructed for the purpose. Of course here, as in England, the ice is carefully covered up with a thick coating of straw when the house is filled. Thus the Chinaman, with little expense in building his ice house, and an economical mode of filling it, manages to secure an abundant supply for preserving his fish during the hot summer months. This, I believe, is the only, or at least the principal purpose to which it is applied in this country, and never for cooling wine, water, or making ices, as we do in Europe.

It is now, I think, a question whether we could not build ice-houses at less expense, and more efficient, upon the Chinese plan than upon the old under-ground system common in England.—*Gard. Chron.*

Renovating Vine Borders.—The following is a method of doing this without disturbing the roots of the vines: An old vine under my charge having failed for two successive years in producing anything like a full crop of grapes, and attributing the principal cause of failure to the border being exhausted, I adopted the following novel plan of renovating it with perfect success. About the middle of March, and just as the vines were beginning to start, I penned a few sheep on the border, and fed them well with Swedish turnip and oil-cake for about a month. Immediately after the sheep were removed the border was slightly forked up and left fallow during the remainder of the season; the consequence was, that the vines made excellent short-jointed wood, and they have ever since carried more fruit in one season than they did in two, previous to the "sheeping" of the border. I cannot say what quantity of turnip and oil-cake were consumed; nor can I as yet state what quantity ought to be consumed on a given space of ground. My border is 48 ft by 15 ft., and I kept six sheep on it during the term mentioned above, and gave them as much turnip and oil-cake as they could eat. Some, I have no doubt, will laugh at the idea of feeding sheep on a vine-border, and think it a very unsightly object to see sheep and hurdles in a garden; but let them bear in mind that half a dozen of sheep and a few hurdles for about a month are not at all so unsightly an object in a garden as a few shanky small-berried bunches, where a full crop of well-shouldered, large-berried bunches of grapes ought to be, and which can be obtained without the labor and expense of renovating a border in the usual way. I intend renovating a peach-house border in the same way, and will send an account of the result. Much depends upon how the sheep are fed; the richer the food the better the droppings.—*Ib.*

Large Peaches.—At the late show of the London Horticultural Society, at Chiswick, peaches, measuring each nearly a foot in circumference, were exhibited They were grown at Burleigh, the seat of the Marquis of Exeter.

Importation of Indian Corn into Great Britain.—Mr. Escott has given notice, in Parliament, that early next session he will move a resolution that maize or Indian corn be imported into this country free of duty.

Analysis of Sugar Cane, by Mr. Herapath.—1000 grains of sugar-cane being burned gave 7½ grains of ash, and these 7½ grains of ash being examined were found to contain:

Silica,	1.780
Phosphate of lime,	3.402
Red oxide of iron and clay,	.176
Carbonate of potash,	1.487
Sulphate of potash,	.150
Carbonate of magnesia,	.430
Sulphate of lime,	.058
Grains,	7.457

Flax a Restorative and not an Exhausting Crop.—In a paper read by Dr. Kane before the Royal Irish Academy, that gentleman attempted to prove, that in the production of the fibre no exhaustion of the soil takes place, that substance being exclusively composed of organic mater derived from water and the atmosphere. He says, in this respect the fibre differs from the woody stem which it surrounds, as the latter, by combustion, yields a considerable quantity of ash, consisting of inorganic compounds derived from the soil: but then, the woody part of the plant is not removed off the farm, it being of exceedingly little value; and, however the cultivation of the crop may exhaust the particular part of the farm on which it was grown, by the matter contained in this woody fibre, it is apparent, that the farm itself will not thereby be exhausted, as these matters are returned to some other portion of it, in conjunction, perhaps, with the manure of the farm-yard. The proportion of inorganic matters contained in the seeds is very small compared with its entire bulk, so that the consumption of the seed on the farm not only makes the flax a non exhausting crop, but absolutely a restorative one.

Editor's Table.

Fair of the American Institute.—Let it not be forgotten that this fair commences at Niblo's Garden, Broadway, on Monday, the 6th of this month, at 12 o'clock, M., when all articles for exhibition will be received and shown.

The National Convention of Farmers, Gardeners, and Silk Culturists will be held at the Repository of the American Institute, in the Park, on Thursday, October 9th, at half-past 10 o'clock, A. M.

The Cattle Show will be held on a plot of ground between Twenty-third and Twenty-fourth streets, near the intersection of Broadway and the Fifth Avenue, on Wednesday and Thursday the 15th and 16th of October.

The Plowing and Spading Matches will take place in the vicinity of the Cattle Show, on Tuesday, October 15th.

The Egg Trade of Cincinnati.—The export of eggs from this city the past year was 11,556,000, valued at about $90,400. In addition to this, the consumption in the city, and for its steamboats, &c., is reckoned at 14.500,000, valued at $97,000!

The Queens' County Agricultural Society holds its annual Cattle Show and Fair at Hempstead on Thursday, October 9th.

The Cotton Crop in the United States, for the past year, amounts to 2,400,000 bales.

The Sugar Crop in Louisiana the past year is estimated at 200,000 hogsheads—the largest ever known. In addition to this, it produced 9,000,000 gallons of molasses.

Value of Agricultural Produce Received at New Orleans for the last Year, Ending September 1st, 1845.—This produce is received entirely from the interior of the Mississippi valley, and is estimated at 57,200,000. The principal items are pork, lard, beef, flour, cotton (nearly a million of bales), sugar (202,000 hogsheads), molasses. hemp (47,000 bales), tobacco (71,000 hogsheads), (732,000 pigs), besides corn, lead, vegetables, poultry, &c., &c.

The American Shepherd: Being a History of the Sheep, with their Breeds, Management, and Diseases. Illustrated with Portraits of different Breeds, Sheep-barns, Sheds, &c. By L. A. Morrell. pp. 437. Octavo. Price 90 cents. Harper & Brothers.—We have long been tired enough of European publications little applicable to our wants and wishes, and are glad at last to announce a work on sheep, written in *America*, by an *American*, on an *American* subject. Mr. Morrell has one of the finest flocks of sheep in this country, and for five years past, has devoted himself almost entirely to wool-growing; and we know of no person better qualified than himself to write a Shepherd's Manual. The work was put into our hands just as we were going to press: we have, consequently, not had time to properly examine it; but we shall do so hereafter, and give a more extended notice. In the meanwhile we are willing to take it on trust, or anything else coming from Mr. Morrell. We heartily commend his book to our readers, believing that they will find nothing of the kind on this important subject so well suited to the wants of the sheep-breeders and wool-growers. The publishers have got up the work in a very neat style, and the cuts to illustrate it are spiritedly sketched and finely engraved.

Modern Cookery in all its Branches: Reduced to a System of easy Practice, for the use of private families. In a series of Receipts which have been strictly tested, and all given with the most minute exactness. By Eliza Acton. Illustrated with numerous wood cuts. To which are added directions for Carving, Garnishing and Setting out the Table with a Table of weights and measures; the whole revised and prepared for American housekeepers. By Mrs. Sarah J. Hale. pp. 418, octavo. Price $1. Lea & Blanchard: Philadelphia.—This is a capital book, and though not much of a *gourmand*, it fairly made our mouth water as we turned over its pages and read the savory receipts contained therein. We intend when we get settled, that this shall be the *vade mecum* of our cook, who, under its guidance, will doubtless produce such dishes as editor never yet had the good fortune to sit down to. In the meanwhile let every housekeeper make a purchase of it.

The American Farmer.—This old and well-known publication changed its quarto form last July to the octavo, and from a semi-monthly has become a monthly of 32 pages, like our own. It is now handsomely illustrated, and issued in a tasteful dress. Published by Samuel Sands, Baltimore, Md. Price $1 a year. It is edited with spirit and ability, and devoted more particularly to south-eastern and south-western farming. We wish this Nestor of the agricultural press a long and profitable existence. We must apologize for this tardy notice, as we have but just received the first number of the publication.

The Fruit and Fruit Trees of America. By A. J. Downing.—We understand that this excellent work has already gone to a third edition, although it is scarcely three months since the first was announced. This speaks well for public taste, and is a flattering testimonial to the author for his excellent treatise. We are sorry to see something of a carping spirit with a few of our contemporaries in their criticisms on Mr. Downing and his late work, and think in several things he has been misunderstood. He is American by birth and in spirit; was reared in a garden and nursery at the delightful place he now occupies, and is a thoroughly practical man; and we know from personal acquaintance of some standing, and our own observation and reading, that his opinions may be generally relied upon. He does not profess to be infallible; but if in error he should at least be told so in courteous language.

Medici Series of Italian Prose. Translated by C. Edwards Lester, U. S. Consul at Genoa, and published by Paine & Burgess, 62 John St., N. Y.—Three volumes are already issued of this series, which Mr. Lester intends shall embrace most of the classic prose works of Italian literature. Vols. I. and II. are the *Florentine Histories* of Machiavelli—most admirable works of their kind, and which we could wish to see in the hands of the young men of this Republic, instead of the trashy novels, to the reading of which they are so much addicted. *The Citizen of a Republic*, by Ansaldo Ceba, a Genoese Republican of the 16th Century, succeeds as No. 4; and in No. 1 we have *Ettore Fieramosca*, or the Challenge of Barletta, a powerful historic romance.

To Correspondents.—Horticulturist, J. H. Jenne, J. B. Coke, John P. Norton, and Senex are received. The last is under consideration. We have no doubt that printing the Transactions was a good job to various highly *disinterested* persons in Albany; but the Legislature is almost entirely to blame for it. The printing of all public bodies, instead of being made a partizan sinecure, should be given to the persons who work best and cheapest. As to the offices of Secretaries of the State Ag. Society, how they should be filled, &c., we have for the past three years very frequently in conversation stated our views, and we intend hereafter to give them in our paper.

Acknowledgments.—To Albert G. Carll, Esq., for an Address of Hon. Gabriel Furman delivered before the Queens' Co. Ag. Society, at Jamaica, Oct., 1844.

REVIEW OF THE MARKET.

PRICES CURRENT IN NEW YORK, SEPTEMBER 24, 1845.

ASHES, Pots,	per 100 lbs.	$3 94	to	$3 98
Pearls,	do.	4 25	"	4 31
BALE ROPE,	lb.	5	"	7
BARK, Quercitron,	ton,	24 60	"	24 50
BEANS, White,	bush.	1 12	"	1 25
BEESWAX, Am. Yellow,	lb.	28	"	33
BOLT ROPE,	do.	12	"	13
BONES, ground,	bush.	40	"	50
BRISTLES, American,	lb.	25	"	65
BUTTER, Table,	do.	16	"	25
Shipping,	do.	9	"	13
CANDLES, Mould, Tallow,	do.	9	"	11
Sperm,	do.	25	"	38
Stearine,	do.	20	"	25
CHEESE,	do.	4	"	8
COAL, Anthracite,	2000 lbs.	5 00	"	6 00
CORDAGE, American,	lb.	11	"	12
COTTON,	do.	6	"	10
COTTON BAGGING, Amer. hemp,	yard,	12	"	13
Kentucky	do.	12	"	13
FEATHERS,	lb.	26	"	33
FLAX, American,	do.	6½	"	7½
FLOUR, Northern and Western,	bbl.	4 50	"	4 87
Fancy,	do.	5 00	"	5 50
Southern,	do.	4 25	"	4 75
Richmond City Mills,	do.	5 75	"	5 83
Rye,	do.	3 12	"	3 38
GRAIN—Wheat, Western,	bush.	95	"	1 00
Southern,	do.	85	"	1 00
Rye,	do.	63	"	69
Corn, Northern,	do.	55	"	56
Southern,	do.	53	"	54
Barley,	do.	65	"	67
Oats, Northern,	do.	41	"	42
Southern,	do.	35	"	38
GUANO,	100 lbs	2 25	"	3 00
HAY, in bales	do.	70	"	75
HEMP, Russia, clean,	ton,	175 00	"	180 00
American, water-rotted,	do.	105 00	"	185 00
American, dew-rotted,	do.	75 00	"	125 00
HIDES, Dry Southern,	lb.	9	"	11
HOPS,	lb.	12	"	16
HORNS,	100.	4 25	"	4 50
LEAD.	lb.	3	"	4
Sheet and bar	do.	4½	"	5½
MEAL, Corn,	bbl	2 50	"	2 75
Corn,	hhd.	11 50	"	12 00
MOLASSES, New Orleans,	gal.	28	"	31
MUSTARD, American,	lb.	16	"	31
NAVAL STORES—Tar,	bbl.	2 00	"	2 25
Pitch,	do	80	"	1 00
Rosin	do.	55	"	70
Turpentine,	do.	2 75	"	3 25
Spirits Turpentine, Southern,	gal.	40	"	45
OIL, Linseed, American,	do.	65	"	66
Castor,	do.	57	"	68
Lard,	do.	55	"	70
OIL CAKE,	100 lbs.	1 00	"	—
PEAS, Field,	bush.	1 25	"	1 50
PLASTER OF PARIS,	ton,	2 50	"	2 62
Ground, in bbls.,	of 300 lbs.	1 12	"	1 25
PROVISIONS—Beef, Mess,	bbl.	8 00	"	10 00
Prime,	do.	5 00	"	6 50
Smoked,	lb.	6	"	8
Rounds, in pickle,	do.	4	"	6
Pork, Mess,	bbl.	12 00	"	14 00
Prime,	do.	9 00	"	11 00
Lard,	lb.	7½	"	8½
Bacon sides, Smoked,	do.	3	"	4
In pickle,	do.	3	"	4
Hams, Smoked,	do.	6	"	10
Pickled,	do.	4	"	7
Shoulders, Smoked,	do.	5	"	6½
Pickled,	do.	4½	"	5
RICE,	100 lbs.	4 38	"	5 12
SALT,	sack,	1 30	"	1 35
Common,	bush.	20	"	30
SEEDS—Clover,	lb.	8	"	9½
Timothy,	7 bush.	13 50	"	17 00
Flax, rough,	do.	8 50	"	9 00
clean,	do.	11 00	"	12 00
SODA, Ash, cont'g 80 per cent. soda,	lb.	3	"	3
Sulphate Soda, ground,	do.	1	"	—
SUGAR, New Orleans,	do.	5	"	8
SUMAC, American,	ton,	35 00	"	37 50
TALLOW,	lb.	7	"	8
TOBACCO	do.	3	"	7
WHISKEY, American,	gal.	23	"	24
WOOL, Saxony,	lb.	35	"	50
Merino,	do.	30	"	35
Half-blood,	do.	25	"	30
Common,	do.	20	"	25

NEW YORK CATTLE MARKET—Sep. 22.

At Market, 1800 Beef Cattle (chiefly Northern); 40 Cows and Calves, and 4100 Sheep and Lambs.

PRICES.—Beeves were dull, and we quote best $6.25, with the bulk of sales at $5a$5.25 and ordinary, $4a$4.75. 55 were taken for Bermuda, and 400 remain unsold.

COWS AND CALVES.—All sold at $16a$28 each, according to quality.

SHEEP AND LAMBS.—The sales reached 3600 head, at 87½ cts a $3,50 each for Sheep, and 50 cts. a $2.25 for Lambs.

HAY.—Loose sells by the load at $1a$1.12½ per cwt.

—

REMARKS.—*Ashes* steady. *Cotton*, brisk, with an advance of ½ of a cent per lb. Export since the 1st September 18,812 bales; same time last year, 31,407; same time, year before, 3,400. *Flour* and *Wheat* extremely dull. *Rye*, *Barley*, and *Oats* have advanced. *Seed*, an upward tendency. *Provisions*, heavy. *Tallow* in active demand. *Tobacco* the same. *Wool*, a slight advance.

Money plenty at 6 to 7 per cent.

Stocks.—Nothing of interest.

The Weather has become cool, with a few frosts, and latterly considerable rain.

The Crops.—Since Cotton picking commenced the rain has done considerable injury to the balls, which will lessen the yield somewhat where it escaped the drouth. Corn is being secured in good order, and is a great crop at the West, a fair one at the North, but at the South, extremely short. Tobacco has suffered severely the past month on the low grounds. Sugar a large crop Hemp is pretty good. Rice is abundant, a few sections excepted. Potatoes have suffered considerably from the rot at the North. Other roots, especially turnips, are very promising.

N. Y. AGRICULTURAL WAREHOUSE.

Having taken the commodious store, No. 187 Water Street, the subscriber is now opening the LARGEST AND MOST COMPLETE assortment of Agricultural Implements of all kinds, ever yet offered in this market. Most of these are of new and highly improved pattern, warranted to be made of the best materials, put together in the strongest manner, of a very superior finish, and offered at the lowest cash prices.

SEEDS FOR THE FARMER.

Such as Improved Winter and Spring Wheat, Rye, Barley, Oats, Corn, Beans, Peas, Rutabaga, Turnip, Cabbage, Beet, Carrot, Parsnep, Clover and Grass-seeds, improved varieties of Potatoes.

WIRE-CLOTHS AND SIEVES.

Different kinds and sizes constantly on hand.

FERTILIZERS.

Peruvian and African Guano, Poudrette, Bonedust Lime, Plaster of Paris, &c.

FRUIT AND ORNAMENTAL TREES AND SHRUBS.

Orders taken for these, and executed from a choice of the best Nurseries, Gardens, and Conservatories in the United States.

HORSES, CATTLE, SHEEP, SWINE AND POULTRY.

Orders executed for stock of all kinds, to the best advantage.

The subscriber requests samples sent to him of any new or improved Implements, Seeds, &c., &c., which, if found valuable, extra pains will be taken to bring them before the public.

s A. B. ALLEN, 187 Water Street, New York.

DEVON CATTLE FOR SALE.

E. P. Beck will sell at public sale, on Wednesday the 15th of October next at his dwelling in Sheldon, Wyoming co., N. Y., a large portion of his valuable stock of pure Devon Cattle. It consists of calves, yearlings, steers, heifers, cows, and bulls of various ages. One year's credit will be given on approved security to all who wish it.

Sheldon, Aug. 20, 1845. 2t

SUPERIOR CRANBERRY VINES.

During the fair of the American Institute, in October, the subscriber will be in attendance at Niblo's Garden, with specimens of the fruit of his superior cranberries. He will also have cranberry vines for sale in lots to suit purchasers.

2t SULLIVAN BATES, of Billingham, Mass.

GRAPE VINES FOR SALE.

The subscriber has a large number of GRAPE VINES, grown from single eyes and raised in pots, and admirably calculated for planting, of all the best kinds, including also several new varieties of superior excellence, sent to me last spring from the garden of the London Horticultural Society.

Newton, Mass., Sept. 1845. WILLIAM KENRICK.

A SHEPHERD WANTED.

A person competent to manage a large flock of sheep, see to their shearing, and putting up the wool properly for the New York market, is wanted to go to Harrodsburg, Kentucky. The wages offered are from 150 to $200 a year, with house and provisions. The country there is perfectly healthy, and the situation agreeable. Apply to

WILLIAM THOMPSON, Harrodsburg, Ky., or
A. B ALLEN, 187 Water St., N. Y.

CHEAP CASH BOOK STORE.

SAXTON & MILES, 205 BROADWAY, N. Y.,

Booksellers, Publishers, and Stationers.

They would particularly call attention to their assortment of works pertaining to Agriculture and Rural Economy, a few of which are enumerated, with the retail prices, from which a liberal discount will be made when a number of works are ordered at one time, viz.:

The American Poulterer's Companion; a practical *Treatise* on the Breeding, Rearing, Fattening, and General Management of the various Species of Domestic Poultry, with illustrations (fifty or sixty) and portraits of fowls taken from Life. By C. N. Bement. Second edition. Price $1.25.

Clater and Youatt's Cattle Doctor, containing the causes, symptoms and treatment of all the diseases incident to Oxen, Sheep, and Swine. Price 50 cts.

Dumas & Boussingault's Chemical and Physiological Balance of Organic Nature. Price 50 cents.

The American Race Turf Register, Sportsman's Herald, and General Stud Book. By P. N. Edgar. Price $2.

Liebig's Agricultural and Animal Chemistry. Price 25 cents each.

Liebig's Familiar Letters on Chemistry. Price 12½ cts.

Loudon's Encyclopædia of Agriculture (English). Price $10.

Loudon's Encyclopædia of Gardening. Price $10.

Bridgeman's Young Gardener's Assistant, new edition, much enlarged. Price $2.

The Farmer's Mine; being the most complete work on Manures ever published. Price 75 cts.

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The Complete Farmer and Rural Economist, by Thomas G. Fessenden. Price 75 cts.

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The Honey Bee, its Natural History, &c., with 35 engravings. Price 31 cts.

Bees, Pigeons, Rabbits, and the Canary Bird, familiarly described. Price 37½ cts.

The American Poultry Book; being a practical treatise on the management of Domestic Poultry. Price 37½ cts.

A Treatise on Sheep, with the best means for their general management, improvement, &c.; by A. Blacklock. Price 50 cts.

The Theory of Horticulture; or an attempt to explain the principal operations of Gardening upon Physiological Principles; by John Lindley. Price $1.25.

Gardening for Ladies, and Companion to the Flower Garden, by Mrs. Loudon. Price $1.50.

American Husbandry. Price $1.

The Farmer's Instructor; consisting of Essays, Practical Directions, and Hints for the Management of the Farm and the Garden; by J Buel, 2 vols. Price $1.

A Muck Manual for Farmers; by Samuel L. Dana. Price 50 cts.

Chemistry applied to Agriculture; M. Le Compte Chaptal. Price 50 cts.

The American Florist, by James Norman Eley. Price 37½ cts.

Catechism of Agricultural Chemistry and Geology, by James F. W. Johnson, M. A. &c., with an introduction by John P. Norton. Price 25 cts.

The American Agriculturist, in three vols. bound. $1.25 each.

Stable Economy; a Treatise on the Stabling, Grooming, Feeding, Watering, and Working of Horses, by John Stewart; with Notes and Additions, by A. B. Allen. $1.

Downing's Fruits and Fruit Trees of America; their Culture, Propagation, Management, &c. &c.; by A. J. Downing. $1.75.

American Farmers' Encyclopædia, and Dictionary of Rural Affairs, embracing all the recent improvements in Agricultural Chemistry; by Cuthbert W. Johnson.

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Also on hand a complete assortment of school, classical, medical, agricultural, and miscellaneous Books, which they offer at wholesale and retail, at the lowest prices for *Cash*.

S. & M. are prepared to furnish Agricultural Societies with agricultural works to be distributed as Premiums of every description. Public and private Libraries supplied at the lowest prices.

DURHAM BULL FOR SALE.

The subscriber offers for sale his fine Durham Bull Osceola. He is now two years and a half old, and has taken the first premium at two successive State shows. For pedigree and further description, see Cultivator, Sept., 1843.

Also, his thorough-bred Stallion Young Florizal.

CLARKSON F. CROSBY.

Watervliet, July 1, 1845. 2t*

STALK AND STRAW CUTTETS.

Sinclair's Stalk and Straw Cutters,	price $25 to $35.
Hovey's do. do.	$10 to $35.
Stevens' do. do.	$10 to $20.
Other kinds for straw and hay,	$3 to $7.

A. B. ALLEN, 187 Water St., N. Y.

STRAWBERRY PLANTS.

J. M. THORBURN & Co., 15 John street, New York, and Astoria, Long Island, beg to inform the Horticultural public, that they have now ready for delivery, 5000 of *Myatt's Eliza* Strawberry Plants which they have proved by fruiting in beds for two seasons past, and can with confidence recommend this excellent Strawberry to the most limited grower. In England, where it originated, it maintains to this day its celebrity, and in Covent Garden market, London, yields to no other sort than the British Queen, which the Eliza is the parent of. It is of a large size, fine pine flavor, and cockscomb form, bright red color, and erect habit. Price for strong rooted plants in pots, 75 cts. per dozen; out of pots from the bed. $3 per hundred.

Also, *Myatt's British Queen*, unrivalled for every excellent quality, has fruited splendidly in a large bed the present season, and is indispensable to the smallest cultivator. No new sort in England equals it for general good qualities; nor in this country approaches it. Strong rooted plants in pots, $1 per dozen, and from the bed strong plants, $5 per hundred.

Also, *Prince Albert*, very large and fine, great bearer, fine shape and beautiful color. $1 per dozen; $5 per hundred. It is one of the best sorts for forcing in pots.

Also, *Hovey's Seedling*, a well known good sort. $1.50 per hundred; $5 per thousand.

Also, *Ross's Phœnix*, one of the best American varieties, well known around Hudson and Albany as a fine productive kind, $1.50 per hundred; $5 per thousand.

Also, *Scotch Pine Apple*, a very bright colored, oblong fruit, of a sprightly pine apple flavor. $1.50 per hundred; $5 per thousand.

The above are quoted at prices which will encourage any one to plant a good sized bed at once. They will produce moderately next spring, and abundantly hereafter.

Strawberries, to bear fruit in perfection, should be kept clear of runners which can be used for forming new beds. A covering of three inches stable manure in winter is very serviceable, which fork in early in the spring. Keep well clear of weeds and a good crop will follow. Place the plants 18 inches apart in the rows, and an alley of two feet between the rows.

Orders will meet prompt despatch and careful packing and forwarding.

NEW SEEDLING STRAWBERRY.

BOSTON PINE.

MESSRS. HOVEY & CO. have the pleasure of announcing to their friends and lovers of this delicious fruit, that their new seedling, called the *Boston Pine*, is now ready for sale. This variety is one of the most valuable kinds ever produced; it is not quite as large as Hovey's Seedling, but possesses the desirable property of being nearly ten days earlier, remarkably beautiful, equally if not more productive, and of a most delicious pine flavor. The flowers are all *perfect*, and will always bear an abundant crop, with or without any other sort. The vines are large and vigorous, and the hardiest of any variety in cultivation. Plants, $3 per dozen, ready for delivery on the 20th of August. Orders executed in the rotation in which they are received. Orders from a distance, remitting the amount, will be duly attended to, the plants safely packed, and forwarded to any part of the country.

Also the following varieties.

Hovey's Seedling—Well known, and acknowledged to be the finest of all strawberries; plants, $2 per hundred.

Deptford Pine.—A new English variety of high reputation, which promises to be a desirable sort; plants $2 per dozen.

Princess Alice Maud.—Another new English variety, large and handsome. First exhibited the present year by H. & Co.; plants, $2 per dozen.

British Queen.—An English variety of high reputation; plants, $1 per dozen.

Swainstone Seedling.—A high flavored variety, of medium size and moderate bearer; plants, $2 per hundred.

Together with all kinds now considered worthy of cultivation, such as the *Elton*, *Myatt's Eliza*, *Myatt's Pine*, *Keen's Seedling*, *Methven Scarlet*, *Bishop's Orange*, *Old Scarlet* or *Virginia*, *Royal Scarlet*, *Ross's Phœnix*, *English Wood*, *Prolific*, *Hautbois*, &c. &c.; plants, $1 to $2 per hundred.

August and September are favorable months for planting strawberries: all orders promptly executed.

Catalogues of Fruit Trees, Roses, &c., &c., forwarded to every *post paid* applicant.

Sept, 1845. HOVEY & Co.

A. B. Allen, No. 187 Water Street, New York, will take orders for the above, and execute them, to be delivered in this city at three days' notice.

LOUISVILLE, KY., SEED AND AGRICULTURAL STORE.

Red Clover,
Timothy,
Orchard Grass,
Red Top,
Millet,
Ky. Blue Grass,
Hemp Seed.

A supply of the above seed, crop of 1845, on hand and for sale by

GEORGE, LAPPING & Co.

Orders from abroad promptly attended to.

Louisville, Ky. Sept., 1845. 2t*

THE AMERICAN AGRICULTURIST.

TERMS—One Dollar per year in advance; single numbers, Ten Cents; three copies for Two Dollars.

Published Monthly, by Saxton & Miles, 205 Broadway, New York, each number containing 32 pages, royal octavo.

Each number of the Agriculturist contains but One sheet, and is transported by mail under the same regulations as newspapers, viz.: *free* any distance not over 30 miles from its place of publication; over this and within 100 miles, or to any town in the State of New York, *one cent* postage on each number, and *one and a half cents* if over 100 miles, without the State.

It is so much trouble to get a post office order paid, and it requires so much formality, that subscribers will please hereafter remit all moneys directly to Saxton and Miles, at their risk and expense; taking care if possible, that the package does not exceed the weight of a half ounce, thus subjecting them to single postage only. Agents also will please bear this in mind.

☞ *Remit through Postmasters, as the law allows.*

Editors of newspapers noticing the numbers of this work monthly, or advertising it, will be furnished a copy gratis, upon sending such notice to this office.

Volumes I., II. and III. of The American Agriculturist with tables of contents complete, for sale at $1.00 each; elegantly and uniformly bound in cloth, $1.25. These are handsome, tasteful books, and make very desirable premiums for distribution with Agricultural Societies, and should also find place in all our District School Libraries. They constitute the best and most complete treatise on American farming, stock-breeding, and horticulture, extant. When several copies are ordered, a liberal discount will be made.

QUEENS COUNTY HORTICULTURAL SOCIETY.

A special meeting of this Society was held at Temperance Hall, pursuant to public notice, on Friday evening, September 26, Joseph Bloodgood, President, in the Chair.

The following resolution was offered and passed:

Resolved, That the Recording Secretary be authorized to furnish to William R. Prince, or any person who may request the same, a certified copy of the proceedings of the special meeting of the society, held on the 22d instant, and that he publish the same; also, that a committee of three members be appointed to take charge of all funds and property belonging to the society in the hands of the Treasurer, or any other person, and apply the same to the payment of the debts of the society; and that Wm. Smart, Thomas Leggett, and Wm. Schermerhorn, Esqrs., constitute such committee; and, as from imperious circumstances, it is deemed expedient to dissolve this society, the same is hereby declared to be absolutely dissolved.

JOSEPH BLOODGOOD, President.

A. G. Silliman, Recording Secretary.

RAMBOUILLET SHEEP FOR SALE.

Mr. D. C. Collins, of Hartford, Connecticut, being so much engaged with other business, has concluded to offer his superior flock of Rambouillet Sheep for sale, and has accordingly entrusted the same to me. The flock consists of about 40 head, old and young, and I wish to dispose of the whole together. For an account of these thorough bred and superior sheep, see volume second of the Agriculturist, page 98. For terms apply to me, as Mr. Collins does not wish to answer letters on the subject.

A. B. ALLEN, 187 Water street, N. Y.

LINNÆAN BOTANIC GARDEN AND NURSERY,

Late Prince's.

FLUSHING, L. I., NEAR NEW YORK.

The new proprietors of this ancient and celebrated Nursery, late of William Prince deceased, and exclusively designated by the above title for fifty years, offer for sale, *at reduced prices*, a more extensive variety of Fruit and ornamental Trees, Shrubs, Vines, Plants, &c., than can be found in any other nursery in the United States, and the *genuineness* of which may be depended upon; and they will unremittingly endeavor to merit the confidence and patronage of the public, by integrity and liberality in dealing, and moderation in charges.

Descriptive Catalogues, with directions for planting and culture, furnished gratis, on application to the new proprietors by mail, post paid, and orders promptly executed.

WINTER & CO., Proprietors.

Flushing, L. I., Sept. 2, 1845. 2t

PERUVIAN GUANO.

A small cargo is daily expected from the Chiacha Islands, of the best quality, and will be sold in bags at the following rates:

In quantities of 100 bags or more, 2¼ cents per lb.
Over 50 and under 100 bags, 2½ cents per lb.
Over 10 and under 50 bags, 2¾ cents per lb.
Less than 10 bags, 3 cents per lb.

Bags average about 125 lbs. each.

This is the only genuine Peruvian Guano expected for some months. Orders will be received at the above rates; and in case of more being required than can be supplied from this cargo, those first at hand will have preference. It is warranted of the best quality. Apply to Edwin Bartlett, 42 South St., or
A. B. Allen, 187 Water St. N. Y.

DURHAM CATTLE FOR SALE.

Nine head of this valuable breed of animals are now offered for sale by the Subscriber, he having more than he can well keep on his farm.

Rose, 9 years old, a good milker, having given 25 quarts milk a day on pasture only. She is in calf by my prize Bull Meteor, and will drop her calf about the middle of August.

Empress, nearly as good a milker as Rose. She dropped her calf about the 25th of June and will be bulled by Meteor.

Eunice, 5 years old, bulled by my imported Duke of Wellington, 25th June, is a good milker, her dam having given 32 quarts a day on pasture only.

Julia, 4 years old, recently bulled by Meteor.

Lily, 2 years old, bulled by Meteor 9th June.

Three yearling Heifers, got by Wellington and Meteor, and a yearling Bull got by Meteor.

These animals will be sold at $100 to $125 per head. A credit will be given of six months or a year, if desired, for approved paper.

Gentlemen desirous of procuring the blood of the celebrated herd of Thomas Bates, Esq., of Yorkshire, England, may now have an opportunity of doing so, as the young animals possess that blood on the side of their sires; and the cows are in calf by Meteor and Wellington. The cows are descendants of the Bullock stock of Durhams. For the good milking qualities of these animals, &c., I would refer to the editor of the American Agriculturist. Letters, post paid, will receive an answer.

Troy, July 25, 1845. GEO. VAIL.

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AMERICAN AGRICULTURIST.

Agriculture is the most healthful, the most useful, and the most noble employment of man.—WASHINGTON.

VOL. IV. NEW YORK, NOVEMBER, 1845. NO. XI.

A. B. ALLEN, Editor. SAXTON & MILES, Publishers, 205 Broadway.

CELLARS.

THE cellar is really one of the most important rooms in the farmer's house. There are several very important qualifications which it may be well enough to mention, inasmuch as a great many neglect to provide them, notwithstanding their great utility and the trifling expense of so doing.

The cellar should be warm in winter, and cool in summer. This condition will be secured by having it entirely under ground, or banked up on all sides.

It should be perfectly dry, and if the earth on the bottom will not absorb whatever moisture finds its way on to it, drains should be made to conduct it off.

It should be well ventilated, which in winter may be sufficiently well done by having a fire-place, or large ventilator connected with the chimney. In summer open grated windows on all sides should allow a free circulation of air.

It should be light, which may be secured by windows, open in summer, and if the cellar be liable to freezing, the difficulty may be obviated, by having a double sash to each window.

It should be clean, every substance, vegetable or animal, subject to putrefaction, should be cleared out, and especially in the spring, as warm weather approaches, and the vegetables are used up; there should be a thorough overhauling and cleansing of every part, and the walls should be white-washed. Unslaked lime scattered around the bottom, or in shallow vessels, will absorb any noxious air, and purify it.

It should be rat-proof. This is easily enough accomplished, by having tight stone, or brick walls; and if inroads are made under ground, they can be excluded by paving with large flat stones, closely joined. Brick are not suitable for this purpose, for if they once get under the flooring and commence their burrowing, they will sometimes move earth enough to cause the bricks to fall out of place, make the floor uneven, and furnish themselves with holes large enough to get into the cellar. The increased size of the stones will effectually prevent this result. If rats are not absolutely excluded, there is no way of avoiding them. They won't catch themselves in traps, and they are too cunning to eat poison long at a time; and as for keeping cats and terriers to catch them, one may about as well keep the rats as their destroyers.

There remains but one more essential, and the cellar is complete. It should be convenient of access, both from the outside for bringing in and delivering articles in quantities, and equally so to the kitchen and sheds above. The subdivisions and arrangements for accommodating whatever is required, may be made to suit the taste or wants of each person as they may choose.

DRY STABLES FOR CATTLE.

WE believe a dry, naked plank floor is better for cattle, even in the coldest weather, than a wet one, well littered with straw. This can be easily enough secured by having a short length of plank, just long enough for the cattle to stand on, resting upon others in the rear, which should extend lengthwise of the stables, and at right angles with the former. It would be still better to have the first plank in the rear of the cattle, fashioned into a shallow trough, descending gently towards one, or from the centre, towards both ends of the stable, where the liquid voided would run off at once, and might thence be conducted into a reservoir, or on to a muck heap. A little regard to the comfort of the dumb beasts, will be consulting the owner's best interest. If they must find shelter in the yard, they should be provided with snug dry sheds around the windy sides, so as effectually to protect them against the rains, snows and sleet, and the rough cold blasts. It is better that these should also be provided with substantial plank floors, descending towards the centre of the yard, so as to drain off whatever liquid falls upon them. These floors should always be kept clean, and they will consequently be much dryer and more comfortable. If there be any straw to spare, it should be appropriated to these open sheds, in preference to the stables, as the increased warmth thereby imparted to the cattle, is still less than in the well boarded building.

TO ECONOMISE FOOD FOR STOCK.

The great scarcity of hay and fodder, owing to the excessive drought of the past season, will make it necessary, on the part of the farmers, to economise their food the coming winter to the utmost. In addition to procuring cutters to chop up the hay, straw, and cornstalks, cooking the food in many instances may be resorted to with economy.

Take a boiler of 50 gallons, into this put 25 lbs. of bran, 3 bushels of vegetables (clean washed), and sufficient water to cover the whole, stir them well up together, and let them simmer four or five hours at nearly a boiling heat, and then pour out into tubs or barrels, and feed the mixture about blood warm. If the food is for work horses or oxen, a little Indian, oat, or barley meal should be added to the above to make it heartier.

It is astonishing how well stock will keep on a cooked mess of this kind, and how much less hay they will eat. Some reckon the hay under these circumstances at one third of the ordinary ratio of 21 lbs.; but if it saves one half, at the present high price, it will be deserving of practice. For the animals which are not at work, cut straw or corn-stalks will answer well instead of hay—especially the latter. Some go so far as to say that the hay could also be simmered with economy; but as this would require a very large kettle, we much doubt it. Simmering is preferable to steaming, because it preserves all the juices of every substance employed in making up the mess; this, however, requires a very large kettle, which is quite expensive. For steaming purposes, a well jointed box, or a tight hogshead, may be employed, and a small boiler with a pipe to conduct the steam into them. We need not describe such, as they are to be found in every neighborhood. Mott's stove boilers, holding from 15 to 120 gallons, and costing from $9 to $40 each, are an admirable contrivance for cooking food, and may be had in this city. We will further add, that by supplying horses and cattle with cooked food, they eat it up in a short time, and then lie down to rest, and are thus enabled to do more work, and keep in better condition than if fed on dry food.

To prevent tools from Rusting.—The surest way is to keep them bright by constant use; but as the plow, hoe, and scythe, are not used in winter, nor the axe to much extent in summer, some method should be devised to prevent rust. This may in all cases be effectually prevented by wiping perfectly clean, and giving to the tool a complete coating of oil or grease, free from salt, and then hang or put it away in a dry place.

LAWS FOR THE DESTRUCTION OF NOXIOUS WEEDS.

There are some legislative enactments, we believe, for the destruction of weeds; one of which requires the *path-masters* to see that all within the public grounds or highways in their districts are exterminated. We wish some of our subscribers who are familiar with the statute provisions on this subject, would give or send us an epitome of the several acts relating to this matter, referring to the volume and page where they are to be found. We wish to bring this important subject to the attention of our State functionaries, and farmers, and make them aware of their penalties as well as privileges.

It is a crying sin as well as shame that such pests as the Canada-thistle, and other kindred weeds, are permitted to grow, and thrive, and seed, and propagate in the highways and byeways, and over one's neighbor's fields, to the annoyance and robbery of an industrious, honest man's labors. He carefully tills his own land, and sedulously exterminates every bastard plant from his fields; yet his idle, thriftless, and perhaps malevolent neighbors;—or that busy, bustling, but generally neglectful, wasteful, profligate personage, *the public*, allow their domains to run to unconditional waste. Look, for instance, to whole acres of the Canada thistle lining the banks of the Erie canal in the neighborhood of Rochester and elsewhere, producing seed enough annually to stock the entire State of New York. It is a matter of special wonder, that the intelligent farmers of old Monroe have not had every canal commissioner who has held the office within the last ten years, indicted for this culpable neglect. We repeat, that we wish some of our friends familiar with this subject, would give us all the laws relating to it, and if we have not such as are sufficiently stringent, let us have them at once, that honest industry may not be robbed of its dues by culpable neglect.

AMERICAN AGRICULTURAL ASSOCIATION.

The regular monthly meetings of this Association commenced again at the Historical Society's rooms, on the first of October, Hon. Luther Bradish, the President, in the chair. After the minutes of the last meeting were read, several articles were exhibited which had been received as donations to the Association; among which were several specimens of grain from the estate of the late Earl of Leicester, of England.

A communication was read from Mr. Samuel Weller, of Brinklyville, North Carolina, upon the subject of the vine culture, and detailing his mode of making wine.

A communication was also received from D'Jay Browne, Esq., offering his resignation as corresponding secretary of the Association. His resignation was accepted, and Mr. Andrew H. Green was elected to fill the vacancy.

W. A. Seeley, Esq., read an interesting paper upon the subject of electro-galvanic influence on the growth of plants. After some other business relating to the Society was transacted, the meeting adjourned, to meet again on the evening of the first Wednesday in November. They have been suspended since May, in consequence of so many of the members being absent in the country. The meetings will now be regular during the winter and spring

EIGHTEENTH ANNUAL SHOW AND FAIR OF THE AMERICAN INSTITUTE.

This was commenced on the 6th of October, and continued till the 25th, and was visited by a much larger concourse of people than ever before known. It was held, as usual, at Niblo's garden, and the arrangements throughout by the excellent managers, gave very general satisfaction.

The Ornamental and manufacturing Departments.—These rooms were unusually full—the fabrics of all kinds, choice and varied, showing some decided improvements the past year in these arts. America may now well vie with Europe in the production of all that administers to the comforts and elegancies of life.

Flowers, Fruits, Vegetables, and Grain.—The display of these was not as extensive as usual, owing probably to the drouth of the past season. But what this department lacked in quantity was made up in quality, especially in the fruits; and we may well say, that we never saw them so select, showing that the gardeners and nurserymen are properly exerting themselves in their several departments. As usual, the exhibition was greatly indebted to Boston, Salem, and other towns in Massachusetts, where we are considerably excelled in horticulture. We are very glad to see our neighbors among us with their handiwork, and productions; but we trust that they will not always outshow us, and that New York will ultimately do justice to herself in this important department of husbandry. Of the private exhibitions, Mr. Pell, of Ulster county, as usual, made the best display.

Agricultural Implements.—Here we observed a marked improvement. A superb display of plows eclipsing all present, of a great variety of patterns, from the manufactory of Ruggles, Nourse & Mason, of Worcester, Mass.; a few from several other manufactories; a superior newly invented hand corn-sheller, separating the corn and cob, by Thos. D. Burrall, of Geneva, N. Y.; also, an improved clover separating machine from the same; a new horse-power corn-sheller, from Mr. Buckley, of Milton, N. Y., shelling 100 bushels per hour; a cornstalk cutter and grinder, by the Messrs. Wheeler, of Poughkeepsie, N. Y.; a grain reaper, by Obed Hussey, of Baltimore, Md.; and a patent horse-rake, with teeth made of steel wire, so as to spring over any small obstacle it may encounter in raking, and instantly recover their places in passing it. We were assured it worked on uneven or rocky ground, where the wooden-toothed horse-rake would be nearly useless. But the most important improvement that we found this year, was the hemp and flax-dressing machine, brought from Missouri, by Mr. Billings. This machine is destined to exert a great influence in the production of these articles, and with its aid we think this country will soon be enabled not only to stop importations, but to export in large quantities. The rotting of the hemp and flax is performed in three or four days, in vats filled with warm water. By this process it is said to be more evenly and perfectly done than by any other method. The crude mass is then dried in a hot-house, and afterwards broken by passing through fluted cylinders, and perpendicular knives falling upon it, like the divisions of the common hand-break; it is then swingled in another machine by a drum with beaters attached, something similar to those of the beater thresher Mr. Billings informed us that six hands can rot, break, and swingle about two tons of dressed flax or hemp per week; and that the hemp thus cleaned has been tested by the Navy Department, and proves one-fifth stronger than the best Russia hemp.

Farmers, Gardeners, and Silk-Growers' Convention.—This commenced on the 9th, and continued three days. Several hundred persons were present the first day from various parts of the Union General Tallmadge presided. We heard many of the farmers complain that they were afflicted with a long speech from the President on the tariff, a thing well enough in its way, but quite out of place in such a Convention. Whether it was for this cause or some other, scarce two score of people were present the second day. Considerable desultory discussion took place on various subjects; but we find it difficult to seize on any important facts to report in our condensed columns. Mr. Robinson, of Indiana, chairman of the committee appointed to prepare an address to the people of the United States, submitted one of much interest. Discussions then took place on the ravages of the wheat fly, raising peaches, the cotton crop, culture of the grape, silk, and the potato rot, when the convention adjourned without day, after talking about meeting in a southern city next year.

Plowing and Spading Match.—This came off in a field adjoining the residence of Charles Henry Hall, Esq., of Harlem, on the 14th, and struck us as being rather a poor affair. Such trials prove neither one thing nor another; and we must confess, that at the present advanced state of agricultural knowledge, we look upon them as a loss of time and money, without any particular beneficial result to the farming community. If the draught of plows and their manner of working could be scientifically and exactly tested, it would conduce to their improvement; but in this loose way it does not, and an indifferent implement often takes the highest premium.

The space plowed was one-eighth of an acre to be completed in an hour. The first done was in 48 minutes. We shall give the official report of the prizes hereafter, as well as those for the test of the draught of plows by the dynamometer. Not approving the manner in which such trials are made, the most extensive manufacturers of this implement made no entries. The competition therefore was limited. The soil was a light sandy loam.

The spading ground was 20 feet long, by 10 feet wide. It was dug in from 18 to 23 minutes—only four entries.

Mr. Meigs, of the American Institute, now mounted a cart and announced the winners of the various prizes; he then introduced Mr. Crane, of Virginia, who made a short and capital off-hand speech, when the assemblage left the field.

Cattle Show.—This was held at an enclosed plot of ground between twenty-third and twenty-fourth streets, near the intersection of Broadway and the Fifth Avenue. The show of horses, especially stallions, was unusually fine. As to other things it was about an average. Sales to some extent were effected after the show was over, and we are pleased to see, that holding a fair for sales is becoming more and more an important consideration at such places. If the American Institute would make its exhibitions one month earlier, the show and fair we are persuaded would be more extensive, and much more numerously attended. The official list of premiums we shall give hereafter.

Lectures and speeches followed each other in succession, at various places and on different subjects, during the Eighteenth Exhibition of the American Institute, and we are glad to observe that an increasing interest is manifest in the public mind on the highly important matter of promoting the cause of agriculture, and the domestic industry of the country.

GENERAL AGENCY OF THE AMERICAN AGRICULTURIST.

It gives us pleasure to announce to our friends, and we are well assured that it will give equal pleasure to them to hear, that the old and familiar acquaintance of all readers of agricultural papers, Solon Robinson, Esq., of Indiana, has taken the general agency of our periodical, and leaves home the last part of this month upon a tour of observation through Indiana, Ohio, Maryland, Virginia, and so south as far as Alabama, along the Atlantic coast, to spread our work, and collect and report facts for the benefit of our readers. Mr. Robinson has been an occasional correspondent of the Agriculturist ever since it was established, and for other papers for a dozen years past, some of which he has done much to build up and bring into notice. He has travelled over most of the United States, and possesses a large fund of information to communicate, as well as a disposition to acquire more.

We are persuaded that Mr. Robinson's reconnaissance will be particularly agreeable at the south; for upon the subject of which southerners are somewhat jealous of interference, we can assure them that they will be pleased to communicate with him. Our journal was the first that started at the north, with the avowed intention of giving a due share of its pages to the interests and agriculture of the south; and we do not hesitate to say, that through the kind favors and contributions of southern planters, it has been one of the best exponents of their agriculture ever published; and this department we mean to increase rather than diminish.

Mr. Robinson is to act as agent for the American Agriculturist, and receive subscriptions or orders for bound volumes, as well as any other of the numerous works published or sold by Messrs. Saxton & Miles. He will also receive orders for any agricultural implements which we keep for sale in our recently established warehouse; and for the celebrated improved plows or other implements manufactured by Messrs. Ruggles, Nourse & Mason, of Boston, and Worcester, Massachusetts; and also everything in the garden and nursery line of Messrs. Parsons & Co., of Flushing, New York.

For money paid to Mr. Robinson, for anything mentioned above, we guarantee the same shall be properly applied. His representations may be entirely depended upon, and all orders given through him will be faithfully and promptly executed. Our exchanges at the South and West will confer a favor upon us as well as their readers, by noticing this arrangement; and we bespeak for Mr Robinson, such attentions upon his travels as will tend to make them agreeable, and further the objects of his tour. It will be his study to make himself useful wherever he goes, and he may be emphatically styled the Agricultural Missionary of the land

Look to the Leaks in your Buildings.—For want of a trifling attention to the covering of buildings, considerable loss is not unfrequently sustained. A single board gets loose, or a shingle is out of place, and forthwith the water is admitted, and runs into a mortice, and soon the tenon is rotted off and the mortice spoiled. Thus, two sticks of timber, in all other respects good, are rendered comparatively worthless by the want of a little caution, or from the neglect of replacing one shingle. Air holes which admit a stream of cold air directly on to an animal, are very injurious to them. Nothing will tend more certainly to disease than this. There is an old Spanish proverb which is true to the letter:

> " If cold wind reach you through a hole,
> Go make your will and mind your soul."

The physical effect is the same whether applied to man or beast. The dripping of water through a leaky roof is equally prejudicial to an animal. Much is lost and nothing gained by these petty neglects.

Italian Grape Vines.—*Imported by C. Edwards Lester, U. S. Consul at Genoa.*—Early the past summer, Mr. Lester arrived in this country on a visit, bringing with him a quantity of very valuable Italian grape vines, which were offered for sale. Many of them were sold at auction, but for a price so low that he stopped the sale, finding he would not get his money back expended in the importation, and the balance he caused to be set out in different parts of the country. A large proportion of these lived, particularly those under the care of Mr. Lester's Italian vine-dresser, and there are now about one thousand, in a fine vigorous state, which will be taken up and sent to us as fast as they are ordered. They are for sale at $1,50 per single vine, or $15 per dozen. The proper way to keep these vines till spring, will be to put them in a warm cellar, and then cover the roots with earth. If set out in the following spring, they will most probably bring fruit the first year. A large number of gentlemen in this country who have eaten this grape in Italy, seem to esteem it superior to any we now have in the United States cultivated in the open air.

The Osage Orange, for Hedges.—This splendid shrub seems but little known for hedges, yet many persons have long believed it admirably adapted for this purpose, and enclosed their premises with it. Near Philadelphia there are hedges of it impenetrable to man or beast. It is armed with formidable spines, and effectually excludes fruit pilferers and gunners. Cattle will not browse on its leaves, or tender shoots; and it is entirely free from the diseases which have made such havoc with the thorn.

CASTS OF A PRIZE SHORT-HORN HEIFER.

It will be recollected that in our March No., page 81, we proposed receiving subscriptions for plaster casts, of the prize short-horn heifer, belonging to Sir Charles Tempest, which at the late annual exhibition of fat cattle, of the Smithfield Club, in London, took the first prize of the gold medal, as the best animal on the ground. These were cast from an exact model of the heifer, which Francis Rotch, Esq., of Otsego, New York, then in London, caused to be executed by one of the first artists of England. They have now arrived, and can be seen at our agricultural warehouse, No. 187 Water street. These casts are 16½ inches long, 9½ inches high, and are beautiful statues of an almost perfect animal. The anatomy of the heifer is exceedingly well developed; and in gazing upon the beautiful model, it seems almost life-like, and as if on handling its unctuous flesh, that it would recede and spring back to the touch, as did the original when standing in its exquisite proportions, a superb show, before the admiring multitudes of Smithfield.

Mr. Rotch deserves the gratitude of the breeders of America for giving them this model by which to fashion their animals, and we predict that it will ultimately exert greater influence in so doing, than all the cuts and pictures of cattle yet offered to the public in this country. A picture can only give a *general* idea of an animal; whereas, a statue adds to this, a *perfect view of its separate parts.* It can be examined on all sides; its proportions measured, and these considered as a whole, and in relation to each other, things which are absolutely necessary to be taken into consideration, in forming a true estimate of an animal. Let those now who are desirous of having what constitutes a good animal, place this statue before them; then take the September No. of the Agriculturist in hand, and turn to page 268, and carefully read over the "Scale of Points for Durham Cows," which they will find there, and they will obtain more just notions in a single hour, than they can otherwise get by reading a whole month. We hope that those persons who hereafter consent to act as judges at cattle shows, will take this subject into consideration, and at least *endeavor* to qualify themselves for the task. If they will do this, they will find a small part of their conceit and prejudice vanish, and their decisions will be more just than those which are too often handed in for the sanction of agricultural societies, to the great mortification and discouragement of all good breeders. Many an indifferent beast have we seen thus held up to the public as the best, and a model to breed from, when the really deserving, from the ignorance of the judges, were passed over as unworthy of notice.

We stated that the cost of the casts would be $3 each, delivered here. We find upon paying freight from London, Custom House duties, and other charges, that they cost within a fraction of $4 each, without allowing a single cent for our time and trouble in the matter. If they are repacked here and shipped, it will cost another dollar each, making $5. We could not undertake to procure others short of this sum. We are willing to be at the trouble of ordering these casts for the sake of improving the cattle of the country, and all we ask in the matter is, to be indemnified for the actual expense of so doing. We could not take the risk of breakage even at this price; but would ensure the casts delivered here at $6 each, provided more can be obtained, of which we are not certain till we write Mr. Rotch, who is still in England None have yet been sent out here except such as were subscribed for last spring. Those subscribing can have their models by calling for them at our office, or directing us where they may be sent.

HOW TO SUSTAIN AND IMPROVE THE QUALITY OF THE SOIL.

It has become an important inquiry among many of our farmers, how they shall fertilise such of their lands as are yielding large burthens of produce, which are taken off the premises for sale? Where remote from a large city, or places for supplying manures, this is a most important query, and one which they are highly interested in having answered correctly It is absolutely certain, that farmers cannot annually rob their farms of large crops of grain, grass, and roots, without either supplying manure to the soil, or losing rapidly in its fertility. We shall briefly indicate some of the most obvious resources for sustaining and improving the productiveness of the soil.

In the first place, not an ounce of animal manure should be suffered to be wasted, either liquid or solid. When not dropped on the feeding grounds, but around the stables and yards, it should be carefully saved and treasured up, where it cannot waste till used. This should be carefully and judiciously compounded with turf, or peat, or vegetable matter, so as to retain all its gases, and not be permitted to drain away, and as soon as a proper time offers, it should be carried on to the fields and at once incorporated with the soil. Another resource for many of our Eastern farmers, is the immense stores of peat and muck that are within their reach, and which tends greatly to benefiting a light, sandy or loamy soil. All the animal matters, bones, leached or unleached, should be carefully collected and applied to their land, and any other fertilising substance which is to be found around the premises or can be collected at not too great an expense in the neighborhood.

But in many cases where the stock of cattle is not large, and the produce sold from the land is considerable, some more definite and certain means for sustaining a farm must be resorted to. With the most intelligent and systematic agriculturists, a proper rotation is adopted, which has been found by experience, to be adapted to the locality and products. By this is meant, a regular succession of crops on the same fields through a series of years, which, at their expiration, are again repeated. They are so arranged that two grain crops never follow each other, but are separated by root crops, grass, &c. This system prevents the necessity of the soil yielding similar ingredients through two or more successive seasons, which it will seldom do to an extent sufficient to produce a good second crop. Time is required for it to decompose such of the ingredients which it contains, as are necessary to form what are called the inorganic portions of the plant, in such conditions to be taken up and appropriated by the plant. It also enables the cultivator to apply his green or putrescent manures to such crops as are most properly adapted to receive them. Such are corn and roots, and nearly all the objects of cultivation excepting the smaller grains.

The great object of rotation, however, is to give the land rest as it is termed, when allowed to remain in grass or meadow; or refreshment when clover or other fertilizing crops are plowed into the soil for manure. Such crops carry back to the soil so much of its materials as they have taken from it, and in addition, important elements which they have abstracted from the atmosphere; and they are found, by long practice, to be of great benefit in sustaining the fertility of the soil. Before passing on to a consideration connected with this particular point in the subject, of the highest importance, we would say, that a large share of the benefit to the land, derivable from this practice, may be secured, by feeding the clover to such animals as will consume it on the ground. We say a part only, for all the food which goes to supply the respiration of the animal, which is no inconsiderable share, passes off again into the air, and is lost. Another part is stored up in the augmented size of the animal, for it is certain that whatever weight it acquires while feeding, is at the expense of the soil. If milch cows are pastured, the abstraction of valuable ingredients is still greater, as it has been found that pastures fed off for a long time by cows, have been robbed of large amounts of phosphate of lime, and other important matters. If horses are thus fed and taken on to the roads or elsewhere to work, it is evident that large quantities of this manure will thus be lost to the fields supplying the food.

Sheep are undoubtedly the best adapted to the object we have in view. They remain stationary in the same fields where they feed, and return to them all they have taken, save what escapes by respiration, evaporation, or is stored up by the wool or carcass. They also drop their manure on the highest and driest parts of the ground, where it is more beneficial than elsewhere; and we would most earnestly recommend the introduction of sheep husbandry on a more or less extended scale, to any farmer who practises the system of turning in crops for manure. The necessity of carrying them through the winter, will still further provide the materials for fertilization, by accumulating a store of manure from this source, which without the sheep or a full equivalent in other stock, would not be thus secured.

But to recur to the subject of turning in green crops. It is evident at a single glance, that this system does not accomplish all that is necessary in sustaining the full measure of fertility of land subject to close cropping. In a rotation consisting of clover and wheat simply, we find that the wheat abstracts large amounts of phosphate of lime, potash, gypsum, salt, &c., &c., which, if nothing be added to the soil, except the clover crop, will in a few years reduce any ordinary soil to so low a point, that it cannot yield profitable returns. The land may continue to yield for a long time; but it is evident that it is losing properties at every successive harvest, which must be supplied to it, or it will eventually be exhausted.

The true and only remedy for this, is, to ascertain by analysis, either of your own, or the well established researches of others, precisely what of the inorganic materials, such as are inherent in the soil, and not found to any appreciable extent in the atmosphere, are taken from the land by cropping or feeding, and not returned to it by straw, manure, or offal of any kind, and return those materials to the land in such available shape, as will enable future crops to supply themselves with all that they require. This is indispensable to a succession of good crops and prolonged fertility, and no farmer is wise who neglects this practice for a single year, however seemingly well his adopted system may answer, which does not embrace the foregoing practice.

AGRICULTURAL PERIODICALS

As the season is fast approaching when most of the periodicals end their volumes, and others are about preparing to be started, we have thought it advisable to say a few words on this subject. We have now had nearly four years experience in the conduct of a journal, and can therefore speak understandingly in the matter. Heaven knows that our heart is perfectly free from any jealousy in regard to our cotemporaries. We care not how many journals are in existence, provided there were the slightest chance of a *fair support* for them; but of those of a purely agricultural nature, all engaged in them will at least *privately* acknowledge, that it is exceedingly difficult to keep them up. Let those then who may think of embarking in this thankless and most miserably paid species of literature, sit down and coolly count the cost thereof, and their prospects of success We can reckon up nearly twenty agricultural journals that have started within the four past years, every one of which has stopped for want of support, and several others are merely floundering along in a sort of spasmodic existence, and must soon share their fate.

To successfully establish and conduct an agricultural paper, requires a good many more things than those unacquainted with the business can well imagine. First, it must have considerable capital to start upon. Second, a great central location, and extensive facilities to get it into circulation. Third, no little share of talent, education, and incessant observation, reading, and practice on the parts of the editor and his correspondents; and these last must be pretty numerous, otherwise the work will flag for want of variety and interest. Fourth, the public taste now demands a good deal of embellishment in the way of engravings, which are quite expensive, and only to be procured in the cities where artists reside. Lastly, strong collateral interests are absolutely necessary to support and keep the paper afloat in the community.

If it were not for our extensive business and other things connected with this journal, we would not continue it another month—we could not afford to do so. It takes 5,000 subscribers to pay the printer's bills alone, and the publishers and editors must look for a considerable subscription beyond this for remuneration for their services in conducting it. "Five thousand subscribers," we hear the reader say, "impossible! why that is $5,000." No sir; it is usually *less* than $3,000, when we come to deduct the commissions allowed to agents, bad money received, and frequently no money at all, postages, and fifty et ceteras that the bookkeeper alone can give any account of. Notwithstanding the foolish boasts of some contemporaries, of "immense circulation" of their papers, which have no other effect than to inflate injudicious heads, and start other periodicals into existence as competitors, which otherwise would never have been attempted—believe us when we say, that there is not a single purely agricultural paper now published in the United States, that is *more than paying expenses*; and several of them not that by some hundreds of dollars per annum—their editors and publishers foolishly living on hope, which they will find to their sorrow will greatly disappoint them in the end. These are deplorable facts, and it is exceedingly mortifying to us to state them; nevertheless, we have at last felt bound in duty to do so with all frankness, in order to stop the delusion which exists on this subject, and save our brethren and those ambitious of becoming so, from needless expense, and no little labor, care, and vexation.

From the best data which we can get at, we find that not one farmer out of a hundred—take the United States over—is a subscriber to an agricultural paper: the ninety and nine being bitterly prejudiced against, or totally indifferent towards them—as, indeed, we will candidly acknowledge they well may be, in some instances, when we consider the rank humbugs and ill-judged matter with which their columns are too often overloaded. If it were not for the gardeners, mechanics, merchants, and professional men, who mainly support it, our paper *could not live a single year!* We have more subscribers in this city alone, than we have west of Buffalo and the Alleghany mountains!

Shall the great body of the agricultural class be then given up to their ignorance, prejudices, and indifference? By no means. On the contrary, change your tactics, and endeavour to reach them in a different way. There are probably at least 3,000 political, literary, and religious papers published in the United States; get a column or two of every one of these to be devoted to agriculture, and fill it up as a few already do, with short, racy articles, such as are best calculated to promote the interests of the farming community of that particular section of the country where such paper circulates. Incalculable good may be effected in this way, and agriculture be greatly advanced, instead of being retarded by the change. Another thing, take measures to properly educate the rising generation. Every school should be supplied with a good agricultural periodical, and the master be instructed to have its contents daily read and explained to the higher classes. The best education for the farmer's boy is, to teach him what he is to do when he becomes a man, and what is better calculated to effect this than a good agricultural periodical?

CARE OF TOOLS.

It is too frequent a habit of hundreds of industrious farmers, to allow their wagons, sleds, plows, scythes, &c., &c., to remain out of doors through a considerable part of the year. A little more care would be equivalent to a great deal of industry. All wood on exposure to wet and heat is injured; some kinds with great rapidity, others with less. But this result is much more rapid when the alternations are from wet to dry, and heat to cold, as there is a constant expansion and contraction of the pores of the wood, which tends to weaken it and produce decay. This result is still more rapidly produced where mortices and tenons exist, as in wagons, sleds, plows, &c., where the water gets into the joints. Many such articles will wear out more in a single year with such exposure, than in four of ordinary use. This kind of negligence is inexcusable, because easily avoided. A trifling expenditure for covering will be sufficient to house any vehicle or tool on the farm, which will save to the owner the entire cost of the covering every year, in the preservation of the tools.

To prepare them for use, the irons not exposed to wear should be covered with a good coating of tar applied while warm, or thoroughly painted. The wood work should be always painted, or saturated with oil. Paint made of white lead is preferable, as besides the absorption of the oil by the wood, which is a strong preservation to it, the lead and residuum of the oil remaining after evaporation, forms a firm, dense, impenetrable coating, which is impervious to rain and moisture.

Benefit of Irrigation.—A friend of ours in Massachusetts, informed us last month, that by turning a little rivulet which meanders though his farm on to his meadows, he has cut over two tons of hay per acre the past year, where, on account of the drouth, had he not irrigated, he would have scarcely cut one ton per acre. He will have over 100 tons to sell this year, for which he can obtain $22 per ton. How often we have entreated the farmers of this country to irrigate their lands, we appeal to our back volumes; it is more easily done than they are aware of; and if a general system of irrigation could be adopted in the United States, it would be millions of dollars to their advantage.

A CRAZY FARMER.

Among other places which we visited during a ramble last summer in Massachusetts, was the magnificent Asylum for the Insane, at Worcester. It is still under the superintendence of Dr. Woodward, one of the most enlightened and benevolent men of the age; and to whom the country is greatly indebted for an amelioration of the condition of the insane, and introducing a kind system of treating these unfortunates, in place of the harsh and cruel usage to which they were formerly the suffering, and, in many instances, the loathsome objects. One of the best means he finds for this purpose, is, to employ the males on the farm attached to the hospital. As an evidence of the safety of this method, he has repeatedly trusted *four homicides* to work together in the same field, with axes or scythes in their hands, and the slightest accident, or ill temper, or disposition to do harm, has never been manifested by them. The farm is of considerable extent, and is almost entirely cultivated by the inmates of the Asylum.

Among his patients, Dr. W. had one who became exceedingly ambitious of farming upon his own hook. At length, the Doctor good-humoredly yielded to his importunities, and gave him possession of a field in rear of the hospital, on which to expend his *eccentricities*. The field was in grass, and the surface of it slightly descending from the rear of the buildings. Near the sides of these he constructed little ponds into which he drained the water from the roofs, and the urine from the water closets, let it stand and well amalgamate a few days, and then he conducted this liquid, quite evenly, by means of narrow, shallow ditches, over all his field. The result was, that this field yielded six cuttings of grass, of about one ton each per acre—making six tons per acre—during the first season! So much for a crazy man's farming. All we can add, is, that we wish there were plenty more such in the country.

A Good Cow.—Doctor Woodward informed us that he thought the grade Durham cows of the country, as a general rule, were the best milkers. He has one which gave 1,050 gallons last year. She was milked ten months, then went dry two months and produced a calf, and was in high milking condition when we saw her. He had several others nearly as good on the hospital farm. They are turned out to pasture by day, and yarded and soiled night and morning. The herd was under the care of another crazy man—a homicide—who, to use his own expressions, owned them all, and the land and buildings around him to a great extent. Indeed he was another Crœsus, in his own happy estimation, and a prince to boot, with a magnificent principality for his domain. His factotum in assisting to drive the cows, and catch all the rats on the premises, was a rough, honest looking terrier, and time would fail to tell of the comic doings and sayings of these twain. We also saw here a superb pair of twin steers of the Durham cross. They were almost exactly alike in appearance, and were inferior to no others in Worcester county as workers. The breed of swine here is most excellent. They are a cross of the Berkshire on the large English white hog, and generally preserve the color of the latter, with the fine shape, hardiness, and quick feeding properties of the former.

THE STABLE.—No. 5.

Ventilation.—Of all the arrangements of the stable, with a view to the comfort and health of the horse, none are so important as those which have in view a proper ventilation. On the purity of the air of the stable depends the health of the horse and his power to do his work; and the object of ventilation is to secure a full supply of pure air to answer the demand arising from consumption.

Our space does not permit the full discussion of this subject; a whole number would not be sufficient. Deeming it conceded that stables should be well ventilated, we shall merely state that in a physiological point of view, the use of air in the animal economy, is to purify the blood. The composition of pure air is as follows: in one hundred parts of air, 79 are nitrogen, 21 are oxygen, with an indefinitely small amount of carbonic acid. When the air passes into the lungs it meets there the blood, which has passed into them from the heart. When it comes from the heart it is dark in color, a deep purple. It is made dark by the presence of a large amount of carbon. When in the lungs it meets the air and the oxygen of the air combines with the carbon of the blood, and carbonic acid takes the place of the oxygen in the air, and together with the nitrogen is expelled from the lungs. By this process heat is evolved and the animal supplied with its animal warmth. When the air is confined in the stable and there is no admission from without, and no escape from within, the air is constantly losing its oxygen under the process of breathing, and carbonic acid taking its place. The blood which was dark when it came into the lungs to meet the air, goes back to the heart of a bright vermillion color, to be sent thence as arterial blood, to again take up the effete carbon of the system and bring it to the lungs, to be there consumed in the process of purification and the production of animal heat. The air, then, to perform its proper function in sustaining the animal system, must be pure, that is, must have 79 parts of nitrogen, and 21 parts of oxygen, and be free of all things else. After being breathed it is charged with carbonic acid. This acid is fatal to life if breathed in sufficient quantities for a very short time.

The air of the stable may be, and is almost always impure from another cause than the presence of carbonic acid. The urine and dung of the horse in putrifaction furnish a large amount of ammoniacal gas. This mingles with the air, and takes the place of a certain amount of it. When the mixture is inhaled into the lungs, there is not present a sufficient quantity of oxygen to consume the carbon of the blood, and change it to carbonic acid that it may be expelled. It is then returned to the system again, and at each successive return to the lungs, passes thence more impure than before.

Now purity of atmosphere is to be effected by two means, viz: the perfect cleanliness of the stable; and by the admission of fresh air from without, and the expulsion of the carbonic acid from within. To secure the stables against ammoniacal gases, remove most scrupulously all dung and urine, and strew the stables and drains with chloride of lime, gypsum (plaster of Paris) or charcoal dust. To insure the absence of the carbonic acid, construct outlets at the top of the stable and inlets at the bottom, to admit fresh air. The air, when expelled from the lungs charged with the acid, is *warm* and of course *lighter* than the unbreathed air. It *ascends*, and if permitted, will escape from the building. If it be prevented, it soon *cools* to the temperature of the air of the stable, and *descends*, to be breathed instead of pure air. If carbonic acid will destroy life when inhaled in sufficient quantities, it will, obviously, in small quantities, affect health. The truth of this is shown by the *amount* and *variety* of disease in *close* stables, filled with *large* numbers of horses.

Beside the action of the carbonic acid and ammoniacal gas on the system through the lungs, there is yet another. Where the gas exists largely, and the horse is subjected to it for some length of time, his eyes are affected, and eventually blindness is brought on. With this exception, the other diseases induced by the foul air of stables, all come through the lungs. Their number is frightful. Inflammation of the lungs, of the brain, of the liver, of the heart, of the arteries, of the kidneys, among the rapid diseases, are often the result of impure air in stables, and are owing oftener to this cause than any other. These diseases are seldom found among farm horses, but are very frequent in large stables of staging and livery horses. Glanders, farcy, heaves, most of the chronic diseases of the lungs, the virulence of influenzas and of all epidemic diseases taking a chronic form, grease, enlarged glands, continually swelled legs, &c., are diseases which most commonly arise from the continued action of foul air.

Warmth and impurity are two things; and a stable may be warm and pure, or may be cold and impure. It is more apt to be impure when warm, than otherwise, for the warmth springs ordinarily from the exclusion of the outward air, as stables that are aired well, generally so admit the air as to make the stable cold. The point in ventilation is to so admit the air as to secure both purity and warmth.

Our cut in this number will illustrate one mode of ventilation. The windows above admit the escape of the ascending warm air, charged with carbonic acid. They are attached by hinges, and may be opened and shut wholly or in part, at pleasure. This method has a double advantage; it ventilates and brings the light into the stables from above. If there be a hay-loft over the stables, this method cannot be adopted; in such a case there should be flues to carry off the carbonic acid and noxious gases. For this purpose, tubes may be passed through the hay-loft to the roof, or holes may be made in the walls at the top of the ceiling of the stables. Whatever may be the form of stables, one of these modes may and should be adopted.

To secure the admission of fresh air, windows are necessary. There should be one with a shutter at the head of each horse. These should be used constantly in fine weather. In addition, there should be windows so placed *near* the floor, as to admit a full supply of air at all times, and yet not directly in upon the horses, who should be protected in bad and cold weather, and when *heated* from currents. This can be effected by admitting the air at a distance from the horses, and giving it a direction that will bring it indirectly to them. A screen of boards opposite the inlet will do this. In fine weather, all the means of bringing in fresh air should be used; and most especially the windows in each stall. The current of air right on to the head and neck is less injurious than on to the loins. When, however, the weather is too cold to admit their use, the stables will be sufficiently ventilated by the window, which will admit it for all, provided there be outlets to permit the escape of the carbonic acid and the gases. In cold weather there is less need of ventilation *below*, as the pure air is denser, and at equal volumes contains more oxygen than when warm. The inlet may then be small, and yet the stable be equally sweet, as the breathed air ascends more rapidly.

Such are the general principles of ventilation. They may be adapted to every stable; and will be, by every owner of horses, who regards his interest and is humane.

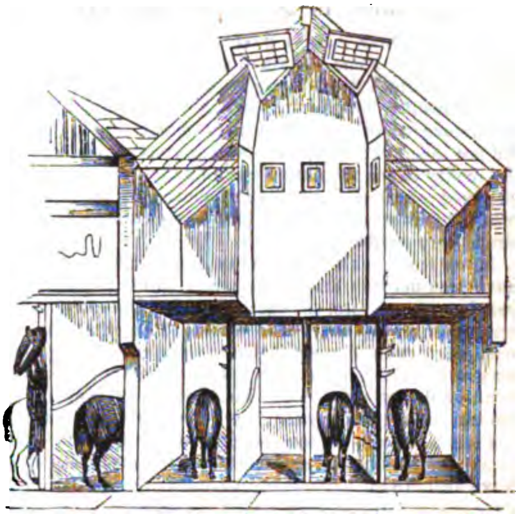

FIG. 73.

Sheep for the South.—Thomas Affleck, Esq., of Washington, Miss., has recently been among us to select a flock of sheep for his plantation, being convinced that they can be bred to as great advantage at the South, as here at the North. He took 46 head in all—15 of the Leicester and Cotswold breed, and 31 of the Saxony and Merino. To these he will probably add a fine flock of Saxony and Merinos, to be selected in Washington County, Penn. Some of the animals selected here, had taken prizes at the State Agricultural Society show, and others at that of the American Institute. They are valuable animals, and we trust that Mr. Affleck will meet with that success which his enterprise merits. Sheep can be supported for almost nothing in the pine woods and some other lands of the south; and many are sanguine, and we fully believe, that a pound of fine wool can be as cheaply produced there, as three pounds of cotton. The former will be worth from 30 to 40 cents on the plantation, the latter 15 to 18 cents only. Mr. Affleck also took out a fine lot of assorted poultry, such as Dorking and Poland hens, African geese, ducks, &c.; some dogs; and a high grade Devon bull.

Sale of Rambouillet Sheep.—We have sold the entire flock of Rambouillet sheep, belonging to Mr. David C. Collins of Hartford, Connecticut, to Mr. L. G. Bingham, of Williston, Vermont. We expect that they will pass through this city on their way to their new home, early this month; we shall then take a look at them, and speak of them as we may think they deserve. We have not seen the flock for about two-and-a-half years. We shall find this one thing at least about them, and that is, they are *pure* Merinos, and precious blood runs in their veins. Mr. Bingham tells us that he shall not sell any ewes from this flock at present, but will spare two or three of the young bucks this fall, if wanted by any one. The price will be from $50 to $100 each. Those desiring the same will hereafter please address Mr. Bingham, or if more convenient they can apply at our office, No. 187 Water st., N. Y.

Benefit of Subsoil Plowing.—A farmer from Connecticut informs us, that he has raised a field of corn the past summer, which he thinks will average 80 bushels to the acre, and that he selected half an acre of the best, from which he gathered 134 bushels of ears, all sound and well filled out. That while his neighbors' corn adjoining was withering with the drouth, his was luxuriant; and he attributes the whole of his success to subsoil plowing. Another fact he stated was, that the whole expense of planting, cultivating, and harvesting after the ground was plowed, did not exceed $3 per acre; that he did not touch it with a hoe, but worked it with a harrow and cultivator; and what few weeds were not reached with these, about the hills, were pulled up by hand before going to seed. We intend to visit his farm next summer, when we shall have something further to report.

Agriculture in Scotland.—No. 13.

Electro-culture.—As I gave you in one of my former letters some information on the subject of electro-culture, I deem it right to furnish you some further results, both of my own observation and the experience of others —You may remember, that I did not then evince any very strong conviction, as to the reality of the revolution in cultivation which was expected; and if I had ever believed in it, facts brought forward during the past season would have shaken my confidence.

Many trials with wires, upon Dr. Forster's plan, have been made in this vicinity, and, so far as I have heard, with uniform ill-success. Mr. Coventry, a gentleman of this city, who embarked most enthusiastically with the electro-culturists, early in the season, has lately come out with a long letter condemning the whole thing. Mr. Gordon, of Knochespoch, on the other hand, has offered, through the Highland Society, a prize of £30 for the best series of experiments on the subject, to be reported before November, 1846. A farmer perfectly well qualified for such a task, tells me that he intends making extensive researches in consequence of this offer; but it is with the expectation of proving the whole thing a humbug, as he has very little faith in the success of his trials.

During a tour in England, through Lincoln and Norfolk, a few weeks since, we heard something of electricity, and on the farm of Mr. Blyth, one of the best that we visited in Norfolk, we spied some wires set up in a barley field, but were unable to discover any difference in the crop over or around which they passed. We charged Mr. Blyth with dabbling in electro-culture; he seemed rather ashamed of it, but said that his limited experience had driven away any glowing anticipations, in which he might have been inclined to indulge. He thought, however, that a *little* effect *was* produced by an experiment in his garden. On repairing thither, we found a wire put up over a bed of onions, and certainly a few rows in the middle of the bed, near the wire, were better than the others; but in the course of our investigations we happened to look at the next bed, where, behold, we found the *middle rows* also best, fully as good as those that were electrified. Such was the result of our personal observations, and we heard many such stories from others.

I mentioned in my former letter, the experiments of Dr. Forster, of Findrassie House, near Elgin, who is the great advocate of electro-culture, and whose results of last year were so wonderful. With respect to these results the Elgin people *do* tell some queer stories; but as a prophet is never honored in his own country, I will not repeat them. In their place, however, I will give you the experience of a credible witness who has seen his this year's operations.

It was in a letter published in the Caledonian Mercury of the 7th instant, from Mr. Cowie, of Haulkerton, Maine, who visited the northern counties expressly to see the *modus operandi* and *results* of Dr. Forster's experiments. I transfer an extract in his own words, he says:

"I was accompanied on the occasion by two crack practical farmers. We drove our vehicle to the stables of Findrassie, where we intended to put up our horse for a short time. While I was engaged in searching for Dr. Forster, who, however, had left home, my friends got into conversation with a very communicative lad, a servant on the farm, respecting the experiments on electricity. The man seemed rather astonished that we had come to see what was thought nothing of in the neighborhood. On being asked if the crops were better where the poles and wires were placed than on the rest of the field, he answered—'Weel, the crop sud be better, considering the *additional pickle-dung* it got beside the wires, but that he could not say there was really any difference observable.' After this exposé our expectations were very moderate; but we determined to have ocular demonstration on the subject, notwithstanding the absence and want of permission of the lord of the manor, whose public announcements have, however, laid that portion of his grounds under experiment, in some measure open to public exhibition. The poles and wires are placed in two very small fields, one of which is in pasture, and the other a crop of barley. The first had not a living animal upon it, and humane and considerate it certainly was, for the total want of anything in the shape of grass beyond the roots, would have starved any hill ewe—nibble she ever so eagerly. The devoted field, instead of being *electrified*, seemed to be *paralysed*, and will to all appearance require some more 'pickles of additional dung' to revive its sensibilities after the *shock* it has sustained. Then as to the barley, it seems neither to have suffered nor to have been ameliorated by the magic wires, for no perceptible difference can be seen over the field. The crop, what with electricity, 'the additional pickle dung,' and all, looks at less than four quarters per acre. It is perhaps premature, so long before the in-gathering of the crop, to condemn the experiments at Findrassie. As far as I have seen and learned on the subject—for similar experiments have been tried and failed in this quarter—I cannot, however, reserve myself until after harvest in denouncing the thing as a hoax. Dr. Forster may have himself been deceived, and we must give him credit for good intentions in wishing to enlighten his brethren; but he should either now acknowledge the failure of his experiments, or submit them to the inspection of some of those shrewd Morayshire farmers by whom he is surrounded."

No comment is necessary on the above, it is conclusive as to those experiments at least. I think you will see that I was somewhat justified in the jocular tone of my first letter; I am sure that most of the agriculturists and scientific men of this country would now join me. The general impression and belief undoubtedly is, that electro-culture is *all fudge*. I have endeavored to give you both sides impartially, and have reported the only favorable trial known, that has been conducted on a large scale. If our farmers can still make something out of it, it will give me great satisfaction. I will close with an extract on the subject from one of the English agricultural papers.

"Royal Polytechnic Institution.—Dr. Bachhoffner has delivered a lecture on electro-culture, or the application of electricity to agricultural purposes. We felt anxious to hear what the Professor would say in the matter, because from his peculiar position we have a right to expect from him a thorough knowledge of the subject. The lecture opened with an elaborate view of the electricity of the atmosphere, and its various phenomena, including the feu d'Elmo, the Castor and Pollux, &c. The professor next examined critically, the reported experiments of Dr. Forster, and laid before his audience the results of a number of researches on artificial electro-culture. We have not space to follow Dr. Bachhoffner through his able lecture, but we may conclude by telling our agricultural friends that we were convinced, and so we deem was the vast audience, that man cannot, by any of his paltry efforts, give to vegetation more of the electro-vital principle than nature has already taken means to supply." JOHN P. NORTON.

Edinburgh, Sept 2, 1845

To the above pleasant letter of our intelligent correspondent, we will add, that more than a dozen of our friends in this vicinity have made experiments in electro-culture in their gardens and fields the past season, without the slightest benefit—so far as our knowledge extends—to any crop whatever. It is possible, however, that electricity may be beneficially applied in a very few instances to certain plants.

CANE-BRAKE LANDS.

As many persons in this State and Louisiana, greatly to their own loss, and that of the States in which they live, are deterred from purchasing or improving cane-brake lands held by them, from the impression that the improvement of them is tedious and expensive, I will state for their information and encouragement, a few facts, and give a few rules and estimates, with which an establishment of twenty-one hands, made this season in T. 14, R. C. West, on Deer Creek, has furnished me.

I reached Deer Creek on the 19th of December last, with twenty-one hands—ten men and eleven women—and a young man of energy for overseer. The three first days of the ensuing week were spent in preparing work, and the three latter given for holidays. On the 28th the hands began regular work, and by the 14th of February cut 225 acres of cane. Between the latter date and the 29th of March, on which day the cane was splendidly burnt, they prepared and planted, in cotton, 150 acres of land belonging to the heirs of the late Dr. Tenquite. That time would have been sufficient for fencing the 225 acres, had their exposure to stock rendered it necessary. These hands have planted and cultivated the 225 acres in corn, the 150 in cotton, and have an excellent crop. Since the crop was laid by, they have cut 100 acres more, to be burnt in October. These latter 100 acres will, in my opinion, be in better condition the ensuing season for cotton or corn, than the 225 cut last winter, burnt in the spring, and cultivated one year. As soon as the cotton is picked out, of which they have as much as they can pick, these same hands will cut 100 acres of cane for corn, which, added to the 325 mentioned, will give 425 acres on my own place for the second year. For the cultivation of the 425 on my own place, and the 150 on the Penquite, making together 575 acres, an additional force of some ten hands will be required, which I shall send from the hills.

From this it would appear that a force of any size, reaching the cane-brake by the 15th of December, can erect the necessary cabins, and open in the cane as much land as would be wanted for cotton and corn the first year. With respect to the production of new cane lands the first year, in cotton, much difference of opinion exists. This I attribute to the varying circumstances of season, size of cane, time of cutting, kind of burn, elevation (dryness) of the ground, quantity of timber, and method of cultivation. My own experience, derived from opening three plantations in the cane, is decidedly in favor of a production seldom falling below 1,000 lbs. of cotton to the acre. As a greater number of acres, then, can be cultivated of new cane than worn lands, the production ought to exceed (to the hand) that of the hills, a result I should confidently expect. As the plow would not be required till the third year, a heavy expense for the two first would be avoided—a very great matter, and one not to be forgotten.

My statements and estimates may seem extravagant, but when I shall have explained the course or system pursued, perhaps they will no longer appear so. Knowing that the little progress usually made in the cutting of cane, so much complained of and dreaded, was mainly ascribable to the defective method of measuring the tasks, or of not measuring, I prepared the work by squaring on three sides, with roads 30 feet wide, straight as possible, the front on, and parallel to, the creek, a body of cane of convenient size, for measurement. The front was accidentally made 960 yards. This I afterwards found was fortunate, for I prefer oblong to square tasks. I directed the overseer to pair his hands, and taking them of mornings to the corner of the body of cane blocked out, run the front of 960 yards, dividing it into ten tasks of 96 yards front each, ordering the pairs successively to cut the side lines by his return. After running down the whole front, he returned and measured the side lines. A cane or pole 8 yards or 24 feet in length, thrown ahead, was found the most expeditious method of measuring. In this way, tasks amounting to ten acres were laid off in a few minutes without any trouble to the overseer, or loss of time to the hands. On finishing the tasks, the hands straightened the back lines by the eye, and thus presented a new front daily. For the first week or ten days, which time was required for acquiring skill, familiarity with the rules of cutting, and becoming hardened to the new work, a quarter of an acre to one, or half acre task to two, was given, after which half an acre by each, or an acre task by the pair, was cut with great ease by 4 to 5 o'clock.

Without having prepared the work as stated, the method or rules for cutting the cane adopted, could not have been practised. They were these: on returning to the front from cutting the side lines, the swifter of the two hands took a strip, of say, four feet, and turning his right arm to the body of the cane, *which was kept invariably in that position*, caught with his left hand, the palm out, the cane (or two, if very close), next the road or opening, and bending it a little, shivered the joint at or just above the ground. The slower hand followed, throwing with his own any cane cut and left standing by his leader, entangled at the top with his. By observing the rule of keeping the right arm to the body of the cane, they were compelled to move the body *laterally*, thus saving the time that would have been lost in changing the position frequently, from a face to a half face to the right, and back again. These things are made more clear by a diagram.

Applying my estimates you will find that 10 acres per day, cut by twenty hands, make 60 per week, 240 per month, and 360 for a month and a half. Making ample allowance for time lost by weather, sickness, or accidents, these 360 acres of cane should be cut between the 15th of December and the 15th of February, and the necessary cabins erected. It would appear from this showing, that it is not only an easy matter to open in the cane as much land as would be sufficient for cotton and corn the first year, but that it is necessary to limit the amount cut, for I would much rather have the cane on my land than off, if it be not cultivated. So favorably do I think of the cane lands (those, of course, on which the cane is large enough to kill the timber in burning), that were two tracts of like quality lying contiguous, the one having the cane on, the other off, I would not hesitate to give ten dollars an acre for the former, rather than accept of the latter as a gift, on the condition of improving it. If I am right in my position, a richer mine of wealth than the cane-brake lands of this State and Louisiana belongs not to any people. But to be enjoyed it must be dug immediately; for a few plantations, dispersed through the various cane-brakes, will, by means of their stocks, in a very short time, destroy the cane, to the irreparable injury of non-residents and the tardy in purchasing.

The young man in charge of my Deer Creek place is extremely energetic and attentive, and performed the work without severity, with great ease to himself and his hands. Mr. Dyer had never before been in charge of a cane-brake establishment, and but one of the hands had ever cut cane. I remained on the place upwards of three weeks, and until satisfied that Mr. Dyer would carry out my plans properly. The estimates herein made, I should add, can be realized easily; but only by great energy and close application to business. S. S. W. Vick.

Vicksburg, Miss.

AGRICULTURAL AFFAIRS IN MICHIGAN AND OHIO.—No. 1.

Since writing you the brief notices of farming matters in Illinois and Wisconsin, which recently appeared in the Agriculturist, I have again gone over nearly the same ground, with the addition of crossing the peninsula of Michigan, and passing twice through Ohio on different routes. The two latter states are fully sustaining their onward course of improvement and population, though in a ratio much diminished from the former. Ohio has, for some years, been tolerably well settled, for an American state, except in her north-western domains, and consequently, the rapid increase of population, which characterizes newer territories, is not to be expected; while Michigan has had some old-fashioned prejudices to encounter, in the shape of sectional unhealthfulness of climate, and semi-repudiation and non-fulfilment of state contracts. These causes have wrought hardly against her, but she has struggled manfully against them, and the thriving villages, the better tilled farms, and the constant inroads of the axe-men into her forests, show conclusively, that she has a population and soil capable of yet making her a great and important state.

A considerable portion of the eastern part of Michigan consists of a clay soil, and is well adapted to grass and grazing. This quality of land extends from a point some 30 miles south of Detroit, to near Lake Huron on the St. Clair river, and for some distance in the interior. As we advance westward, the soil, with more or less exceptions, gradually changes to a gravelly or sandy loam, and, in some instances, acquires these characteristics to so decided an extent, as seriously to interfere with its permanent fertility. This is universally true of large quantities of the oak openings, which so generally pervade the interior and western part of the state. These lands will bear a few, good, first crops; but manures must follow close upon their heels, or exhaustion and sterility are as certain as blighted leaves after autumnal frosts. There are some moderately good corn lands among this class of soils, and most of it is excellent for wheat; but all the agricultural vigilance of a long cultivated country must be generally adopted, or diminished crops will soon drive the occupants into the uncultivated regions still farther west. There are many sections of the state which are exceptions to these remarks, and none more so than a considerable part of the beautiful valley of the Kalamazoo, whose rich and gracefully undulating fields, clad with their native *burr oak*, give unfailing promise of abundant wheat fields for years to come.

There are other and extensive portions of the state possessing considerable fertility, which yet remain to be occupied, and which, in the inevitable progress of things, will ere long be settled, and swell the tide of her population and wealth, to a respectable approximation towards her elder sisters.

Sheep husbandry is making considerable progress in the state, and promises soon to furnish no inconsiderable proportion of the aggregate of her occupation. Depredations from wolves seem already to offer no serious impediments to this department of the farmer. In many of those sections through which my earlier routes extended, some dozen years ago, when their nightly serenade was the only lullaby of the wearied traveller, they are now known only by tradition. They have followed closely upon the footsteps of their friends, the Indians,* and are now seldom to be found, except amid the fastnesses of impenetrable swamps, or boundless forests.

Wheat is the great product of the state, and on this the farmers principally rely for their available exports. Never did their efforts receive a greater reward than the present season. The estimate of several judicious citizens is, that the crop fully averaged 20 bushels per acre over the state. I was informed of a wheat field containing 100 acres, which averaged over 45 bushels per acre, and one measured acre of which, produced over 60 bushels. A cargo of this year's crop from Michigan, averaged one barrel of the best, superfine flour, for every 244½ lbs. of wheat. The expense of transportation from the interior is excessive. About 10 cts. per bushel from Ypsilanti, a distance of only 30 miles; and 20 cts. from Marshall, 108 miles, by railroad, from Detroit, reduces the avails of the wheat-grower's product, to far below what it should yield him. It is a matter of no little surprise, that when this road is in the hands of their own citizens, and entirely under their own control, such onerous rates should be tolerated. They may probably find a mitigation of this excessive tax, in the hands of a private company, which will probably soon succeed their own chosen task-masters in the ownership of the road, and whose sagacity will dictate an abatement of the present rates of freight, as vitally connected with the advancement of their own interests. Certain it is, that the generally prevalent, and decided hostility to corporate associations, which is one of the political Shibboleths of the present day, would not tolerate exactions from any body of private citizens, which they suffer with impunity from their own legislature.

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* It is said, an Indian superstitiously avoids killing wolves, notwithstanding their depredation on their game, from apprehensions of ill-luck in their hunting excursions—a remark which is only partially correct.

From Toledo, which is destined to be the commercial capital of northwestern Ohio, my route was by the Wabash canal, about 60 miles, to the junction, thence by the Miami extension to the south. The first is 60 feet wide, and 6 feet deep; the latter 40 by about 4 feet. There is a grandeur about these forest highways, which no cultivated regions can match. From the junction, where a small hole has recently been scooped out of the forest, which is now occupied by some half dozen log-houses, three mighty prongs stretch their giant way through a vast and almost interminable wilderness; north-easterly, by the Maumee to Lake Erie; westwardly, to Fort Wayne and the Wabash; and southerly, by the Auglaize and Miami, to the Ohio; and as the eye courses over an unbroken level, through these lengthened vistas, as far as the unaided vision can reach: hemmed in on either side, by apparently dense walls of lofty trees, 150 feet in height, reared amid their solitary and uncultivated grandeur, as if directed by the exactest rules of mathematics; we feel how puny are the works of man, even the aggregate of the temples and pyramids of Egypt, in comparison with the works of the Creator. For an entire day, our route lay through this magnificent waste, unbroken in its unique splendor, except by an occasional log hut by the wayside, the nucleus of some future village or city. To a mind somewhat divested of the utilitarian, matter-of-fact notions of the present day, this stupendous, yet direct and facile pathway, through matted forests, which hitherto had barely yielded a footpath for the wild huntsman, might easily be deemed a prolonged miracle, like the dividing of the Red sea for a passage to the Israelites, when "the waters were a wall unto them, on their right hand and on their left."

Already these routes, although so recently opened, have become busy and important channels of communication for the remote and extensive commerce of large and distant states, and the craft for its conveyance can hardly be supplied with sufficient rapidity to meet its demands. To Buffalo and Lake Erie the Miami extension has unlocked the rich treasure house of the Ohio and Mississippi. It penetrates through the garden of Ohio, to Cincinnati, which is confessedly the emporium of the west; and through her, it will reach the commerce and business of nearly every state in the Union to the south and west. This new region, rude and uncultivated as it yet is, possesses much of a semi-classic interest. It was the great theatre of strife which immediately succeeded to the Revolution, when the red man, aided by the more doubtful hostility of British policy, which still kept possession of the frontier posts within the American territory, struggled against his encroaching foe, with the energy of despair, and vainly sought to arrest his onward progress to the dominion of the west. This was the scene of Harmar's retreat, St. Clair's defeat, and Wayne's triumphs; which, at every point, are brought to mind, by the old military names, which yet indicate the stern contests of bye-gone days; and long may the names of Fort Recovery, Fort Defiance, and Fort Wayne, continue to remind the prosperous husbandman of the valor of those, to whose sufferings and exertions he is indebted for his security and success in his present peaceful occupations.

The soil bordering the canal, for the first hundred miles from Lake Erie, is principally clay, and is evidently destined to be a grazing country. The islands, and some parts of the valley of the Maumee, yield large crops of corn, but it is not till we strike the valley of the Miami, that the corn region properly commences. From below Piqua and Troy, almost to the Ohio, seems one continuous, interminable field of corn, corn, corn; and if the spirits of the ancient race delight in witnessing the luxuriance of their cherished maize, their enjoyment must almost counterbalance the misery of seeing their posterity driven from their former domains.

The agricultural capabilities of southwestern Ohio may be equalled by some favored parts of the same, and a few other states, but can nowhere be surpassed. In the commingling of the geological elements in their fluid state, and in their subsidence and constitution as soil, that just and happy combination seems to have been effected, which leaves scarcely anything to be supplied. And it is possessed in such profusion too, as to be apparently inexhaustible. Forty-seven successive and abundant crops of corn have been taken from a field, and this not renovated by a single load of manure, or the alluvium from any stream. Nice observers would, however, I doubt not, detect some incipient decline in their productiveness, and if this severe course of cropping be persisted in, it needs no prophet to predict, that, at no remote period, their fields will share the fate of the once fertile tobacco plantations of Virginia, many of which have long since been turned out, to resuscitate by the slow, but certain operation of nature.

The corn raised here, is universally the gourd seed, which, from long experience, has been found to be the best producer wherever warmth of climate and depth of soil are sufficient to develope and mature it. The yield, under ordinary cultivation, without manure, varies from 40 to 60 bushels per acre, but with manure and good attention, it will sometimes average 100. It is usually planted about 4 feet apart each way, with three or four stalks left in a hill. Some plant nearer, and leave fewer stalks together. It appears much thinner in the field, than a luxuriant growth of northern corn. That planted on the uplands on a lighter soil, is still more scattered, and from its great height, appears thin and spindling. I doubt if many of these fields, which met my eye, out of the Miami and Sciota valleys, would exceed 25 bushels per acre. This can hardly be profitable farming in a country, where corn sells from 15 to 25 cts. per bushel, unless so far as it contributes to make out a rotation, and the stalks can serve a valuable purpose for fodder. R. L. ALLEN.

Buffalo, October, 1845.

LIME IN VIRGINIA.

The use of northern stone lime for agricultural purposes, in this and other tide-water sections of Virginia, has now become extensive, and would, I believe, speedily become much more so could farmers be assured as to the quality of the various limes brought to this market. The greater proportion of the lime used here is obtained from Schuylkill, Coopersville, and the different lime-works on the Hudson river. From several of the latter lime has been used on the estate under my care; and in 1844, about 80,000 bushels were obtained from the lime-kilns of the Messrs. Tomkins, in Rockland co., N. Y. A preference was given to this, these gentlemen having politely forwarded an extract from the report of the Geological Survey of the State of New York, in which the analysis of their lime was stated to contain in 100 parts

of Silica and Alumina	7.25
Carbonate of Lime	92.75
	100 parts.

The above analysis indicated lime of a very superior quality, and imparted confidence in the purchase and use of it. Mr. E. S. Cooper of Baltimore, an extensive lime manufacturer, when in this section of country in the early part of this year, with the view of testing the quality and value of the lime furnished by him, as compared with that received from the Messrs. Tomkins, took with him a sample of their lime to Baltimore for analysis. A letter was subsequently received from Mr. Cooper, addressed to Robt. B. Bolling, Esq., proprietor of this estate, dated Baltimore, June 2d, 1845, from which the following is an extract: "I now enclose and attach analysis of Coopersville, Schuylkill, and North River lime. You will at once perceive that my lime is as cheap at 7½ cents per bushel, as the North River is at 6¼. Mine contains 44 parts, and the North River 37½ parts of quick lime, or more than one sixth more."

The following analysis was made of the Messrs. Tomkins lime by Mr. Stuart:

" Quick lime,	37.3
Water,	17.7
Carbonic, Acid, Magnesia and Alumina	21.2
Silica and Oxide of Iron	23.8
	100 parts.

It lost 17 per cent. of weight during a calcination of half an hour, at a red heat. It contains a remarkable proportion of iron. You will please inform me if you wish to know the proportion of magnesia, alumina, and iron and silica. You will notice that I have devoted my attention to the lime. There may be but 5 per cent of magnesia, or it may exist in the proportion of 21 per cent. It contains precisely 37 3-10ths per cent. of pure lime."

In comparing the analysis of this lime, as stated in the Geological Survey of New York, and that made as above by Mr. Stuart, purporting to be the same lime, there is a considerable difference, and, to the farmer, a very important one; and to ascertain which is the correct one would be very desirable. In a private letter to the Messrs. Tomkins, I called their attention to this matter, but having heard nothing from them, I would respectfully solicit, through your paper, the desired information from any of your correspondents familiar with the various qualities of lime in use. It would be of importance not only to the manufacturers of lime themselves, but also to the purchasers, to have a correct analysis of their various limes placed before the public, and I would suggest to farmers generally the propriety of purchasing from none, where a certified analysis was not produced. And, Mr. Editor, on your readers and subscribers in this section of the country you could scarcely confer a greater benefit, than by giving them this very desirable information through the pages of the Agriculturist. I am sure the editor of the Southern Planter will gladly devote a portion of his pages to the same desirable object.

In this section of country, agricultural improvement is much needed, and rapid advances are in many instances being made; and every means that can be made to bear upon, strengthen, and facilitate this good work, ought to have the hearty co-operation of all. There is scarcely a subject of more importance, than that of ascertaining the various qualities of lime, brought to and needed in this beautiful agricultural country, destined at no remote day to be the garden-spot of Virginia, and probably excelled by none in the United States. Should you deem the subject of sufficient importance, please to give to it what aid you can.

In justice to the Messrs. Tomkins, I ought to state that the application of their lime on this estate, so far as effects can yet be judged, promises to be satisfactory—certainly better than some lime received prior to obtaining supplies from their kiln, much of which was very indifferent. A. Nicol.

Sandy Point, Charles County, Va.,
Sept. 9, 1845.

LARGE FLEECES.

I notice some articles going the rounds under this head, which I am pleased to see; because, limited as the information is, I am gratified to know that our countrymen can produce from any of their sheep *large fleeces*. In your August number I gave you some account of the shearing of my flock by making various classes, comprising my whole flock, and then giving you the average on the whole; stating that the 207 sheep averaged more than five pounds per head. The exact average was five pounds and three quarters of an ounce, reckoning it on the whole. Now I did all this to answer your inquiries in your May No., which were pretty close and searching, just what they ought to be. I could take a very different method, and make up my average thus: With the weight of every fleece noted down at the time, I find I can select forty-two in the flock, and the average shearing is 6 lbs. and 4 oz. Or I can select fifty-seven, and the average is just 6 lbs. per head. If I stop there, it gives no true account of my *whole* flock.

Now what I wish is, that your correspondents would answer each of the several inquiries in your May No., and give us the average on their *whole* flock; and give us an account of the weight of the lightest, as well as the heaviest fleeces shorn. Then we should know how to make up a judgment in regard to the entire flock of the wool-grower. I hope yet to see such communications in your paper. The Agriculturist has done more, I think, to bring to light facts in regard to pure blood Merino flocks in this country, than any other print whatever; and your inquiries were well calculated to shed light on the history, condition, improvement, and numbers in such flocks—information of vast importance to the wool growers of our country.

Williston, Vt., Sept. 23, 1845. L. G. BINGHAM.

VINTAGE OF OHIO.

I PROMISED you an account of our vintage. It is over, and after all complaints of the rot, and dropping of fruit, and the lamentations of the hard-working German women, who do most of the work in the vineyard in the summer season, my tenants have cause for gratitude, not complaint. The promise of the crop early in the season, was without a parallel. Their expectation was, 500 barrels of wine. They have made upwards of 300. The must was very rich, and the wine promises to be of fine quality. More is said of the quantity of wine raised in this country than is true. The balance of the State, I venture to assert, has not produced an equal quantity. But the cultivation of the vine is fast extending on the Ohio, and one or two years more, and I trust the same remark would not be true of this country.

I am also extending my vineyards. As an excitement to poor Germans, I will give the result in a single vineyard, that of Tuferbers.—It is situated four miles from the city, on Boldface Creek. It is a rich, steep, stony hill. It resembles the hill of the Irishman; "So steep, that before you get up on the one side, you are half way down on the other." It was a hard bargain to the tenant. To trench, bench, and wall the south side hill, was worth $300 per acre. My first tenant on it was a Virginian. I will hereafter go to Virginia for high-minded gentlemen, but for hard workers I will stick to Germans, or go to the land of buckwheat, or the land of steady habits. The Virginian was on it three years. Never trenched a foot. All the cuttings he planted were killed by weeds. He had a son killed accidentally, yet so far from having a shroud, there was not even a shirt in the whole family to put on him. Yet their exterior appearance was decent, and their manners threw my accomplishments into the shade. Perhaps my pride was wounded. From this, or some other cause, I changed them for a young German, and—for a wonder—I met with one too stupid to grow rich. After three years' trial, I parted with him. I then took the present German tenant. He was very poor, but strong and healthy. His wife, a match for the wife of my other German tenant; who, when she died, told me, "he might just as well have lost his horse." He had also full grown boys and girls. I made a hard bargain with him. Bound him to trench and bench six acres of the worst ground in three years, and plant it in grapes, and put out fruit trees. I was to have half of the proceeds of all the wine and fruit. Space was allotted to him to raise cabbage and potatoes for his family, and pasture. I was careful not to make an attempt to climb the hill for the three years, or go near it, fearful of disappointment. Judge my surprise at the end of three years, to find six acres handsomely trenched and benched, with their walls and vines in fruit. Peaches and apples were this season a total failure, and he had his grapes only to rely on. This is the only vineyard at which a few Isabella grapes remain To encourage him, and the other vine-dressers, I let them have my share of the wine at a reduced price. For the Catawba, he was to pay 75 cents per gallon, for the Cape Vevay, or Schuylkill Muscadell, 62½ cents per gallon; for the Isabella 50 cents per gallon. The whole of his enclosure does not exceed thirty-five acres—nine acres of it in grapes. He has sold his wine of this vintage, for cash, for $1,779,41. At the price my share was sold to him, it came to $713,75, and left him from the vintage, the nett sum of $1,065,66. I trust other poor Germans may be excited by his example. The thirty-five acres cost me $630. There were some vineyards in the neighborhood, more productive than any one of mine, as they suffered less from late frost and the rot.

Cincinnati, Oct. 7, 1845. N. LONGWORTH.

PLOWING RIDGES.

I PERCEIVE by your October number, one of your correspondents is desirous of knowing how to form a ridge on a round curvature for meadow land, as described by Judge Buel. Commence in the old furrow. The first furrow must be very shallow and small, the back furrow a little deeper, and so close as to cover the first furrow; the first furrow on each side make narrow and shallow, because these four furrows require to be placed as low as possible. The third and fourth furrows on each side, plow as deep, and wide, and high, as possible, because those four furrows are situated where the ditch, or the difficulty is, which prevents the water coming to the furrow; then plow the remainder of the furrows up in proportion. The last two furrows require to be very narrow; the last but one plow shallow in order to have an earth furrow after the sod is plowed. This earth furrow is very necessary to cover the seed. Ridges may be plowed from three to five yards in width. The principal part of the harrowing should be done parallel with the plowing, in order not to fill the furrows. Then take a double mould-board, or a single mould-board plow, and go once or twice in the furrow, then let a boy take a hoe or shovel, and scatter the earth from the furrow, so that the water may come freely to the furrow. J. B.

FRUITS IN MISSISSIPPI.

THE improvements in agriculture in this vicinity are truly gratifying Mr. F. Washington settled near me last February year, in the woods, with limited means, and a small force; had his houses to build, land to clear, &c. And this year he had plenty of grapes from cuttings the previous year; figs from cuttings, and peaches from small trees, set out at the same time for his family consumption. He sold $300 worth of water-melons alone, many of them weighing over 50 lbs., and a few as much as 60 lbs. each. He has paid great attention to manuring with muck and lime, coal and ashes from a steam-mill near here, and from hog pens, &c., &c.; indeed, as every good farmer should, he makes manure from, and of, everything, and is reaping a rich reward. He has now 2,500 peach trees, mostly 6 feet high, from the seed, the past spring, all budded with choice varieties. It is, indeed, the prettiest nursery of its age, I ever saw. He now has turnips 3 inches in diameter, and the finest prospect I ever saw—will grow 1,000 bushels.

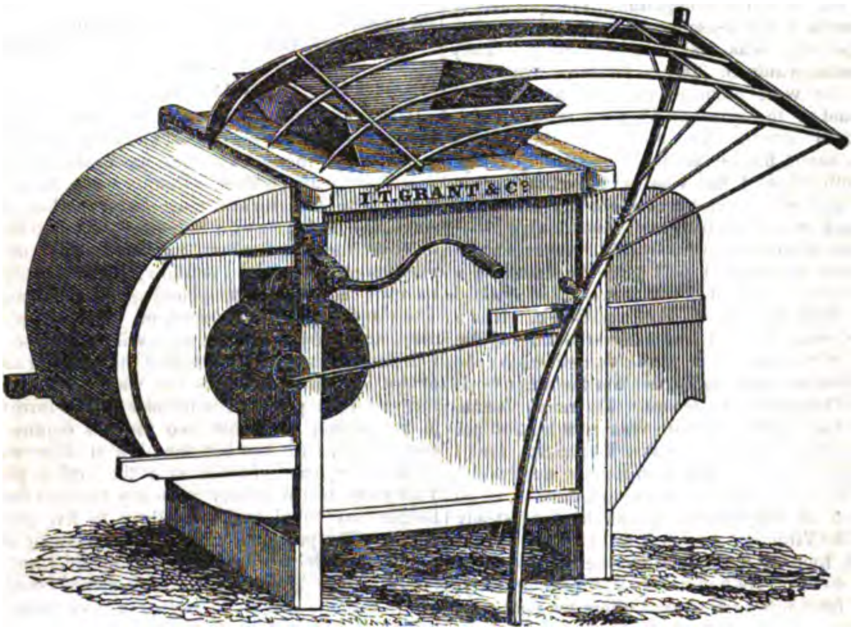
Our own grape crop again proved fine and abundant. The rice and potato crops both were injured by drought this year. The Cuba species of Bermuda grass which we have tried here, is succeeding finely, and will be valuable for meadows as well as grazing. We have taken a fine sward off a small lot this year.

Another neighbor made an experiment this year, in wine, and the best judges think there is no doubt of his success. He has a good vineyard for the time he has set it out, and contemplates making wine extensively in a few years, having had experience at the business when a youth on the Rhine. We are progressing slowly with *leveeing* the salt marsh, in which we find a considerable quantity of marl, aluminous earth, and decomposed vegetable matter, constituting its principal ingredients.

I trust your work will do all the good to agriculture it is capable of, from its merits, and this can only be effected by its being widely disseminated, which I hope its friends everywhere are using their best exertions to effect. JOHN J. McCAUGHAN.

Mississippi City, Oct. 8, 1845.

GRANT'S PATENT FAN-MILL.



GRANT'S PATENT FAN-MILL.—FIG. 74.

CONSIDERING the simplicity of its construction, and complete efficiency in all its operations, we think the above Fan-mill is the best in use. It has taken the first premiums for three successive years at the State Agricultural Society shows, and we believe at no less than seven country fairs. Mr. Grant has recently made some improvements in it, which consist in adding to the screen and other parts in general use in fan-mills, an additional screen, and what is denominated a chess board, which are arranged in such a manner as to cause a much stronger blast of wind to act upon the grain at the lower part of the shaking sieves or screens than at the upper, and thereby to aid the action of said sieves in effecting the screening, by which means the chaffing and screening are performed simultaneously. All other fan-mills require that wheat should be run through twice, to clean it thoroughly, while the Patent Fan-Mill will chaff and screen wheat more effectually in one operation, than other mills will in two operations, thereby saving half the time and labor required by old mills. The Patent Fan-Mill will also clean all kinds of grain, such as rye, buck-wheat, oats, corn, peas, beans, clover, timothy, and flax-seed, in one single operation. Oats and peas are separated by being run through the mill once.

Directions for cleaning Grain and Seed.—For chaffing and screening wheat, put No. 2 sieve in No 1 groove, No. 4 in No. 3 groove, No. 9 in No. 4 groove, and the board in No. 5 groove pushed back even with No. 9 sieve. If cleaning for seed, put No. 7 in No. 6 groove; if, for market, put No. 8 in No. 6 groove—give it the middle shake, and open the air slides.

For rye and buck-wheat, put No. 2 in No. 1 groove, No. 4 in No. 3 groove, No. 8 in No. 6 groove, and give it the long shake, if you want to screen rye the same as you do wheat for market.

For oats, put No. 1 sieve in No. 1 groove, No. 2 in No. 3 groove. If to separate oats and peas, or take out thistle heads, put No. 4 in place of No. 2—give it the long shake, and close the air slides part way up.

For corn, peas, and beans, put No. 2 sieve in No. 2 groove, the board in No. 6 groove—open the air slides and give it the short shake.

For flax seed, put No. 4 sieve in No. 2 groove, No. 8 in No. 4 groove, No. 12 in No. 6 groove—shut up the air slides and give it the long shake.

For timothy and clover seed, put No. 4 sieve in No. 1 groove, No. 12 in No. 3 groove, and the board in No. 6 groove—shut the air slides and give it the long shake. If you want your timothy seed perfectly clean, you must put a No. 20 sieve in place of No. 12.

Be careful that the mill stands level, that the grain works equal on the sieves, and keep it well oiled with winter strained lamp oil. The sieves are numbered according to the number of meshes to the square inch.

The fan-mills are for sale at our agricultural warehouse No. 187 Water street.

ICE-HOUSES

We need not go to China to learn how to make an ice-house. "A cheap plan for an ice-house," has been known in this ice-growing country of ours so long, that the fashion has got to be so old it has been forgotten. Where hay or straw is plenty, it has the merit of cheapness as well as goodness. It is built thus:

Mark a circle upon the ground (if for a single family), say 12 feet diameter, and drive a row of stakes 18 inches apart, 6 feet high: outside of this, set another circle of stakes, 4 feet from the inner one; now fill in very compactly with coarse hay or straw between the rows of stakes; cut out a space for a passage, which must have two doors to fit tight; lay poles across the inner space, and build up a stack to shed off the water; lay some poles or brush in the bottom to keep the ice off the ground, which keep well drained, and your "cheap ice-house" will keep itself and yourself cool.

Try it. I assure you that it will keep in till you are tired of it, and then it will make the old sow and pigs a capital hen roost. SOLON ROBINSON.

New York, October, 1845.

BUTE COTTAGE.

The annexed is a sketch of the beautiful cottage of William Bailey Lang, Esq., at Roxbury, near Boston, Massachusetts. It contains a porch, small entrance hall, parlor, library, dining room, china closet, two store rooms, ten bed rooms (seven of which have upright walls), two dressing rooms, a kitchen, larder, two cellars, and a pump room. It is warmed throughout by a furnace. The style is Elizabethan, and is no less varied than picturesque, and combines much comfort in it. The porch may be made so wide as to admit a carriage to drive under, so that let it be ever so stormy, one can get out and in without being exposed to the weather. The large projecting windows are delightful; and the jutting roof makes the building warmer in winter and cooler in summer, and protects the walls from the rain, thus keeping them much drier than it is possible for narrower-eaved roofs to do. Upon the whole, this cottage is quite to our taste, and we think it particularly appropriate to the changeable climate of the northern states. We are pleased to notice that the Gothic style is finding favor in the country, and that its picturesque forms now frequently greet the traveller in his wanderings among us. Views, with ground plans and descriptions, of this and other "Highland Cottages," are published and are for sale by Saxton & Miles, 205 Broadway, New York, and we commend the work to the notice of all persons interested in rural architecture. The book is remarkably well got up, and the plates are beautiful specimens of lithography.

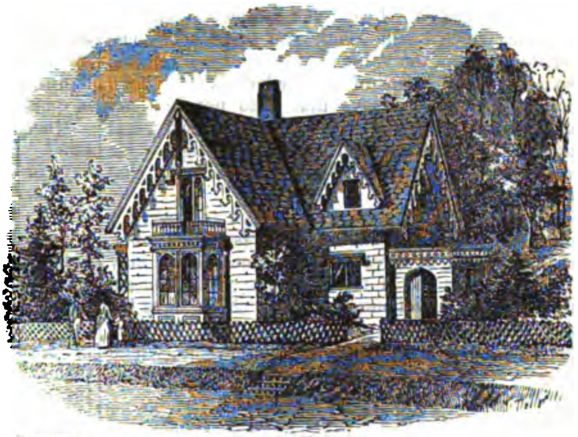


Fig 75.

CULTURE OF INDIGO

It being quite out of the question to make a living in my neighborhood by cotton planting, I am turning my attention to something else. Sugar is the first article to attract attention, as it is extremely profitable, but it requires a fortune to begin with, and is out of my reach. Indigo, I have thought, might answer, but from a small trial I have just made, it does not appear so. My little trial, it is true, is not a fair test, but such as it is, you shall have it.

I planted, early in the spring, a piece of new ground in indigo, on which nothing had ever previously been planted, and after leaving plants enough to give me seed for another year, cut and measured a piece of the following dimensions, viz., 1176 links of the English surveyor's chain, by 150 links, which multiplied into each other, gives 176,400; dividing this by one hundred thousand, the number of square links in an acre, it gives somewhat more than one acre and three quarters. From this I cut weeds to fill four troughs, or vats, which, after being filled with the weed, held 120 gallons of water, which, after steeping about seven hours in the daytime, or eleven hours at night, I drew off into another vat, and beat from forty to fifty minutes, when I found that it would readily settle, and put in the lime water (about one quart), for that purpose, keeping the froth down, of course, with oil. In this last trough or vat I had two spigot holes, one above the other, and of one I allowed the far greater part of the water to run, and then draw out the indigo and the remainder of the water in a rather coarse cotton cloth placed in a box with holes in the bottom of it, the cloth acting as strain, and the holes in the bottom of the box letting the water run from the indigo. This I put in a press for twenty-four hours, in a wooden frame placed on a bench, with grooves, or rather saw-cuts across it, to allow the remainder of the water to run out. I now took out the indigo, still wet, cut it in pieces, and dried it in the sun; out of the sun it appeared to be impossible to dry it. When the indigo was taken out of the press, each making averaged about seven pounds, or twenty-eight pounds in the whole. I have just now weighed it, when perfectly dry, and the whole weighs only three pounds. Now at this rate, indigo would be rather worse than cotton; but I have not given it a fair trial. It was planted too wide apart, and not cultivated as it ought to have been in consequence of the cold and wet spring drawing my attention to work of more consequence. A neighbor of mine, an old indigo planter, has just one acre of ground in indigo; he has cut his first crop from it, and assures me that he has made fifty pounds from it, and expects twenty-five pounds more from a second cutting. From the samples of indigo I have seen bought by my neighbors, most of whom spin and weave, I am quite certain that it is much adulterated with some other substance; and they assure me that it is sometimes so bad it will not dye at all. Mr. Landry, my neighbor above spoken of, has sold what little he made at $2 25 per pound; or half a dollar per pound more than the usual retail price of the imported indigo. I send you samples of both his and mine, which I will thank you to give to some dyer, to ascertain the value of it in your market, and also a few small lumps of blue, which is three parts starch. Mr. Landry says that I do not beat my indigo long enough, and lose by it in that way, and that I sun it too much and make it too light. He smokes his, but I cannot clearly comprehend what good that does.

It appears to me impossible to take in and secure a crop of more than one and a half acres to the hand, and this planted at three different times, that it may ripen gradually, and not all at once; and, indeed, not so much in a wet summer, of which we have too many, sometimes raining for sixty days, with no more than two or three days' intermission, which nearly destroys cotton crops, and might be even worse on indigo.

The purport of this letter is to elicit a detailed and full account from some practical indigo planter, the whole process of making it, as well as to ascertain the price at your market of such qualities as I send you. All the accounts that I have seen on the subject are meagre indeed. Nothing at all calculated to make an indigo planter. PHILIP WINFREE.

New River, La., Aug., 1845.

—

We have but recently received the samples of indigo spoken of above, and not being acquainted with any practical cultivator of it, we handed them over to Mr. Partridge, an extensive dealer in dye-stuffs in the city, for information. The following is his reply. It must be premised that he puts down the *wholesale* prices the samples might probably bring in this city; whereas Mr. Winfree speaks of *retail* prices in the interior of the country. We shall feel grateful to any of our readers who can furnish us further information on the culture of indigo in this country. We do believe it would pay the southern planter well if he only knew the proper method of cultivating it.

—

MR. ALLEN,

Dear Sir:—I have examined the samples of indigo sent you by P. Winfree, Esq. The fine samples mixed with starch may be worth about 30 cents per pound, for blueing clothes when washed. The squares sent loose in the box, and full of white—or rather drab colored specks—might sell at 50 cents per pound. The sample from Mr. Landry could scarcely be sold at 50 cents; but might bring more, if on trial it should work better than its appearance indicates. The sample of Mr. Winfree is much inferior to all the others, and I much doubt if we could persuade a regular consumer to buy it at any price, as it has evidently been injured in the making.

The best violet and blue Bengal indigo are selling at about $1 40 per pound. We are selling prime consumable quantities of Bengal at from $1 15 to $1 20. Prime Guatimala is selling at from $1 to $1 10 per pound. One pound of the latter being worth at least twice as much as any sample sent in the box, judging from appearances. There is certainly something wrong in the manipulations of all these indigo makers.

Query 1st. Do they not leave the plant to pass its period of maturity before cutting? Mr. Dalrymple informed me that it should be cut when in full flower; another East India maker, that it should be cut before the flowers come out in blossom. They all agree that if left too long, the indigo produced will be less in quantity and of inferior quality.

Query 2d. Do they not cut the plant too soon after rain? For it appears that it should have several days of dry weather before cutting.

Query 3d. Do they not ferment too much or too little? In making indigo in the East, they judge of the steeping by the color and the smell of the liquor. Sometimes it is complete in six hours, at other times it requires twenty hours This variation in the fermentative process may often arise from the state of the weather before cutting; for if moist from rain, the fermentation will certainly proceed more rapidly than when the weather has been previously dry for several days. It may be influenced also from the state of the plant when cut, whether it has arrived at full maturity, as described by Dalrymple, or whether cut before bursting into flower; as the latter would undoubtedly ferment more rapidly than the former, the condition of the plant being more succulent. The state of atmosphere during the process of steeping, must have a decided effect in either hastening or retarding the fermentation; for when it is clear and dry the fermentation will not be so rapid as when it is hot and moist. It is in this operation that more skill is required than in all others: and unless the operator understands this point, and attends particularly to it, no profit can be derived from the manufacture.

Some of the best indigo I ever used in England was made in South Carolina, by the late Gen. Wade Hampton; who informed me by letter many years since, that the art of making was lost in this country. I presume, however, that it may be recovered again by repeated experiments In Mr. Winfree's letter, he states that the seasons are often very wet, it sometimes raining for sixty days' in succession, with only two or three days intermission; now such a season must be too moist for the indigofera.

With regard to the beating, it must be continued until all the green particles have become sufficiently acidized to precipitate, for whatever portion remains in a green state will be lost, this portion being soluble in water. WM. PARTRIDGE.

SCIENTIFIC FARMING.

“ Knowledge is power.” I would that farmers more generally adopted this maxim. I look around and behold the rapid march of science, the vast improvements in the various mechanic arts, and the onward progress of civilisation. Man has been furnished with everything conducive to his happiness, and endowed with intellectual faculties capable of securing it. He can study the sublime truths of the abstract sciences, his educated and expansive mind can soar above and contemplate the starry heavens, the mighty orbs that wheel their course around the sun; he looks within himself and sees the beautiful simplicity of his internal organization, and is led to exclaim, how “ wonderfully and fearfully are we made.” The talents of man have been variously exerted and applied since the first formation of society; some of the most brilliant have been exerted in the pursuit of political fame; some have exhausted their energies in the promulgation of the simple and divine truths of religion; the flowing minds of some have roamed over the flowery fields of imagination, and produced the most exquisite poetry; while the powerful and splendid talent of others, like those of a Newton or a Franklin, have demonstrated the most complex and abstruse problems of astronomy and philosophy. But how few have turned their attention to scientific farming, and reduced it to practice! While improvements have taken such immense strides in all other branches of industry, to which as yet man has turned his attention, why is it, that agriculture must remain behind the age, and plod on in its monotonous career? It is, because, until of late, tilling the soil was not considered a dignified occupation, and as requiring no scientific investigation. But it should be studied deeply; each farmer being able, if possible, to analyze his soil, and learn what substance is wanting to mature the seed he expects to commit to it; he should learn the nature and organic structure of each and every plant he wishes to raise, and apply those manures, containing the required matter, to bring them forth in their fulness, and he will be many fold rewarded. The cultivation of the earth is that occupation of which the Deity has expressed decided approbation.

Agriculture is the parent of all sciences; it is coeval with the history of man, and the surest safeguard to a nation's prosperity and welfare, and the means of uniting in the strongest bonds of fellowship, its colaborers. In the earliest age of the world agriculture was deemed paramount with the interests of mankind. The ancients tilled the soil and produced abundantly, and attributed that which was the reward of their own labor to the care of their goddess Ceres. Hesiod sung of the labors of the field; the Carthaginians by agriculture, prepared Sicily to be the granary of the world. Regulus, a Roman senator, sought retirement from public life, to till his farm. No pursuit is more congenial to health, to the free exercise of the physical and mental faculties. The green fields, the gently waving forests, the trees bending beneath their weight of golden fruit, and the rich harvests, bespeak the wisdom, goodness, and design, of an all-powerful Creator. We inhale the pure air, and are led to “ look from nature up to nature's God.” Yet, young men who have been brought up in the country, must wend to the brick-bound city, in quest of a precarious fortune, which they more often fail in acquiring; whereas, if they would remain in the country, and exert their mental, in connection with their physical powers, they would be sure of a slow but steady gain, and generally make better men. But they must bow to their idol fashion, and sacrifice their fortunes and health upon her altar, not content to live by the sweat of their brows, and read the book of nature as it lies open before them.

By the formation of societies, and the circulation of good agricultural papers, I hope to see a new era dawn on this the mother employment of the earth, on which all other industry must depend for a subsistence. A great stumbling block in the way of improved culture is, the stern prejudice which so many farmers have to so-called “ book farming;” they pronounce this with a sarcasm due to uneducated men. I have heard many say, an agricultural paper was the last thing they wished to read; such follow precisely in the footsteps of their grandfathers, and of those farther back, for aught I know. But you have a laudable zeal, in arousing this dormant feeling which has so long prevailed; I heartily wish success to your exertions. Children of the soil, put your shoulders to the wheel of improvement, that it may turn in your favor, and let it carry treasures to your coffers, and happiness to the community at large. Young men, turn your attention to that of rural occupation, which the Father of his country has pronounced “ the most healthful, the most useful, and the most noble employment of man.”

A Young Farmer.

Flushing, L. I., Sept., 1845.

GALLOWAY CATTLE.

I have been present at two agricultural exhibitions in Scotland, where the best of Galloways were to be seen, and on the whole, I think them a very valuable butcher's beast, producing some of the very best beef in the London market. They are admirably suited to a short pasture, and a severe climate, and when removed to lower districts and richer pastures, make ample remuneration to the grazier. The farmers here who grow turnips, generally tie up a few every winter in the “ byre,” for fatting, which are sold the following spring to the drover, whose facilities for transportation are already very great, and still increasing, so that the fatted animals lose but little in the transit.

Black is the most approved color of the Galloway cattle, though dun is by no means uncommon now, and occasionally you find an equally pure bred animal, which is belted with white; but the belt must in no case extend beyond the body, having the two ends and the extremities of a jet black. The coat is made a point of the greatest importance, as the animal's best protection in this severe climate. It must be long, thick, and silky, with a wavy rather than a curly character; and in evidence of this, the ear must be large, and at all seasons well fringed with a long lock of hair, hanging from the upper edge across its whole width, and down far below the under edge, thus curtaining the entire opening of the ear.

A good “ stare,” or, in other words, a prominent and somewhat wild eye, is admired. A broad muzzle is sometimes named as a Galloway feature, and being a hornless breed, the poll must be narrow and running up to a point, as indicating purity of blood, and an absence of all disposition to put forth horns;

for when there has been the slightest cross, the frontal bones always widen, as a preparation for these appendages, and are most jealously watched. The unimproved animal is rather a stiff handler, low in the rump, and rising in the tail, which latter is set far into the back. Breeders are attending to all these points by making careful selections; and in the best animals they are no longer found, or, are at least, very much improved. The Galloway ox stands low on the ground, and comes to the shambles about four years old, weighing about 600 lbs., when from the "high district." The bull is remarkable for those masculine features about the head and neck, which, in my opinion, have been bred too fine and delicate in the improved Short-horns. The Galloway cow is generally a poor milker, and is not expected to do more than bring up her calf. Her milk, however, is very rich, and the butter sweet, and though I am writing from the "higher," or "upper district," I occasionally meet with an excellent Scotch cheese.

The Galloways are generally sold out of the country at two-years old. The heifers are all spayed, except a few selected for the dairy and breeding. They are then kept and fed in England, till nearly four years old, when they fetch the best prices in the London market. This breed would do well in Massachusetts, Vermont, New Hampshire, and Maine; for though the winters are severe and the pastures short, they are generally sweet, and they have a good beef market in Boston. R.

Drumlaw, Scotland, Oct. 1st, 1845.

AGRICULTURE OF MAINE.

There is nothing in your paper that interests me more than those of your correspondents in different States, who tell us where they live, and the particulars of their climate, soil, and productions. In hopes, then, that the same account of ours here in Maine will be equally entertaining to others, I submit to your disposal an account of ours. In my account of the climate, &c., of Maine, I propose only to give those particulars which are more immediately connected with her agriculture.

The latitude of Dixfield village—about one geographical mile north of my domicil—is 44° 32′ 46s. north. We have generally about five months continual sledding, and the snow accumulates from three to five feet deep. We expect one month thaw in the winter, under the cognomen of the "January thaw," which sometimes breaks up the ice of two feet or more in thickness in the Androscoggin, and plays some wild pranks along its banks. From this statement it will readily be perceived that we have but about six months in which to perform all our operations in farming, which bring us to the surface of the soil. This, perhaps, is the greatest objection that can be brought against this State as an agricultural one.

Wild animals.—The most of those of a malignant and depredatory disposition have nearly disappeared; and their company is exchanged for those who—though less dangerous to man's safety—are about as troublesome to us. Among these more modern intruders, is the common rat, which was unknown in this neighborhood several years after I came here. Foxes, skunks, and mischievous dogs abound, as with our brethren in the northern States.

Serpents.—Of the poisonous kind, I never heard of any in the State, except some two or three towns in York county; where it is said there is, or has been, some rattle snakes. I do not recollect of seeing but one species of the snake kind in this State. This is of a brownish color on the back, with yellow stripes on the sides, and is two or three feet in length. So you see we are not very snakish.

Birds.—Those kinds of birds which are most common in Massachusetts, abound to some extent here. Some of these, however, are seldom seen, and some never. Among those I have never seen, is the beautiful quail of the middle and southern States. I have not seen a single bobo'link, or thrush, or blue-bird, or common black-bird, that I recollect this summer. Mischievous crows, and saucy jays are plenty enough. Partridges swallows, hawks, and owls, are as common here as in other northern States. Wild pigeons are much plentier here than in Massachusetts.

Wild fruits.—Some species of raspberries are the most plenty. They are, however, an inferior variety of a red color. I have never seen but one bush of the black kind common in Massachusetts, and that is long since dead. The next plentiest is a blueberry, which grows on very low bushes, and is quite a pleasant fruit. The common black whortleberry is not found to my knowledge in this county. I believe they are found in Kennebec; but probably of limited extent. Strawberries are plentier here than I have ever seen them in Massachusetts. Cranberries are found in some places, growing wild, but I have no knowledge that they abound to a great extent. Blackberries of one species only, abound in this State. This appears to be one kind of bush that grows in Massachusetts; though the structure of the bushes, and their green features are merely similar there is a wide difference in the value of the fruit The fruit is generally of a conical shape, and I have seen now and then some of a superior size and flavor, perhaps nearly an inch long, and half an inch in diameter at the bore. I have no doubt it might, with pains in cultivation, be rendered a superior fruit. Grape vines are seldom seen, and those that are seen. sour fruit and of little value.

Cultivated products, stock, &c.—Everybody knows that Maine is a good stock country, and is capable of producing as good stock of every kind, as any State in the Union. And was it not for the serious drawback in the profit of raising and keeping, in consequence of the length of our winter, we could compete with any other State.

Wheat.—The depredations of the grain-worm have interposed a serious obstacle to its cultivation in this part of the State. We find we can avoid its ravages by sowing after the twentieth of May; but it is more subject to rust than if sown earlier; so that the alternatives presented are something like (as Pomp the nigger said) avoiding "Silly to run on Carryfagus!" It is, however, cultivated to considerable extent in this country, and perhaps nearly enough raised for home use. But little winter wheat is sown here.

Indian corn.—I find no serious difficulty in raising Indian corn. In the experience of a quarter of a century, I have never had a total failure from frost or otherwise; and I see no reason why we may not cultivate it in this and the more southern and western parts of the State, with a fair profit. It is true we must be a little careful in selecting early varieties, and a more careful cultivation.

Rye.—When I first cleared my land, I raised good rye, but within a few years I have found, that even with all the risk of the grain worm, I can raise more wheat than rye on an acre. It is, however, raised to considerable extent, but not largely in this part of Maine.

Oats.—Perhaps after wheat and corn, oats will follow next as a generally cultivated crop. I cannot, however, from any figuring I can make, find it so profitable as some other crops; and I find Mr. Colman's report of the agriculture of Massachusetts, gives the smallest profit on oats of any crop cultivated there.

Potatoes.—This crop, I suppose, all know is our hobby up east; and if the remark be true some have made, that every bushel of potatoes round here in Maine will nett as much as every bushel of corn does the inhabitants of the western States, we have but little reason to complain of our lot.

Peru, Maine, Sept. 2, 1845. J. H. JENNE.

CULTURE OF FLAX.

THE following directions for the culture and proper management of the flax crop, were compiled by the Committee of the Society, for the promotion and growth of flax in Ireland. They have been carefully arranged from the mass of information obtained by the Society and their agriculturists, during their four years' experience, in the improved system of management. By this system, Irish flax has been produced, which brought, in some cases, the high prices of £90 to £140 ($450 to $700), per ton. Messrs. Abraham Bell and Son, extensive shipping merchants of this city, have deemed them of so much importance, that they have had them extensively published, and we transfer the same to our columns, esteeming it the most valuable article we have ever met on the subject. If the Flax rotting and dressing machines spoken of page 331 of this number, perform all that is anticipated, the United States will be able to grow large quantities of it for the foreign market, which will be adding another important item to our agricultural exports, and greatly increase the wealth of the farming population. Formerly, considerable quantities of flax were grown in this state and New England, but since the introduction of cheap cotton fabrics as a substitute for linen, its culture has been almost entirely neglected. It is still grown extensively in Pennsylvania, Ohio, and parts of Kentucky.

Soil and Rotation.—By attention and careful cultivation, good flax may be grown on various soils; but some are much better adapted for it than others The best is a sound, dry, deep loam, with a clay subsoil. It is very desirable that the land should be properly drained, and subsoiled; as, when it is saturated with either underground or surface water, good flax cannot be expected.

Without method, there cannot be success—different soils require a difference of rotation. In the best soils of Flanders, flax is grown in the third year of a seven-course rotation, or the fifth of a ten-course rotation. It is not considered generally advisable to grow flax more frequently than once in ten years In Belgium, it invariably follows a corn crop—generally oats; and, in this country, where oats is such a principal crop, the same system might be profitably pursued; but it must be understood, that it is only after oats following a green crop or old lea, and never after two or three succeeding crops of oats, which bad practice still prevails in some districts. It is a very general error among farmers, to consider it necessary that flax should follow a potato crop. Except on very poor soils, a better crop will be produced after grain, and the double benefit of the grain and flax secured. If old lea be broken up, and potatoes planted, a very fine crop of flax may be obtained in the following year.

Rotation of Crops for Flax.—The following rotation, which would bring flax once in ten years, has been proposed:—First year, potatoes; second, barley, laid down with grasses; third year, cut for soiling; fourth year, pasture; fifth year, flax; or the one-half might be better in flax, the other in oats—so that, with the return of the rotation, which would be in five years, the flax could be put on the ground which, in the last rotatory course, was under corn, throwing a range of ten years between the flax crops coming into the same ground.

A gentleman of much practical knowledge, recommends the following as being the most profitable:—1. Oats, after grass and clover. 2. Flax, pulled in August; then plowed and harrowed in two cwt. guano and two cwt. gypsum; then sown with rape. 3. Potatoes or turnips, well manured. 4. Wheat, and sown in spring, with clover and rye-grass. 5. Hay and clover. 6. Grazing. 7. Oats. 8 Flax and winter vetches; guano, as before-mentioned. 9. Turnips, well manured. 10. Barley, sown with rye-grass and clover. 11. Clover and hay. 12. Grazing. 13. Oats.

Preparation of the Soil.—One of the points of the greatest importance in the culture of flax, is by thorough-draining, and by careful and repeated cleansing of the land from weeds, to render it of the finest, deepest, and cleanest nature. This will make room for the roots to penetrate, which they will often do to a depth equal to one-half the length of the stem above ground.

After wheat, one plowing may be sufficient on light friable loam, but two are better; and, on stiff soils, three are advisable—one in autumn, and two in spring, so as to be ready for sowing in the first or second week of April. Much will, of course, depend on the nature of the soil, and the knowledge and experience of the farmer. The land should be so drained and subsoiled, that it can be sown in flats, which will give more evenly, and much better crops. But, until the system of thorough-draining be general, it will be necessary, after oats, to plow early in autumn. Throw the land into ridges, that it may receive the frost and air; and make surface drains, to carry off the rains of winter. Plow and harrow very early in spring; and again, a month after, to bring the land into good tilth, and clean it thoroughly from weeds and roots. Following the last harrowing, it is necessary to roll, to give an even surface, and consolidate the land, breaking this up again with a short-toothed or seed harrow, ere sowing.

Sowing.—The seed best adapted for the generality of soils is Riga, although Dutch has been used in many districts of country, for a series of years, with perfect success. American seed does not generally suit well, as it is apt to produce a coarse, branchy stem. If used, it should only be on deep, loamy soils. Select plump, shining, heavy seed, of the best brands, from a respectable merchant. Sift it clear of all the seeds of weeds, which will save a great deal of after trouble, when the crop is growing. This may be done by fanners, and through a wire sieve, twelve bars to the inch. Home-saved seed, grown from foreign, has been used in many cases with success. It is suggested, that a small portion of the crop may be allowed to stand, until the seed be fully ripe, and then pulled, and the seed preserved for sowing; but the seed saved from *it* in the following year, should only be used for feeding, or sold for the oil-mills. The proportion of seed may be stated at three-and-a-half imperial bushels to the Irish or Plantation acre; and so on, in proportion, to the Scotch or Cunningham, and the English or Statute measure. It is better to sow too thick than too thin; as, with thick sowing, the stem grows tall and straight, with only one or two seed capsules at the top, and the fibre is found greatly superior in fineness and length, to that produced from thin sown flax, which grows coarse, and branches out, producing much seed, but a very inferior quality of fibre. The ground being pulverized and well cleaned, roll and sow. After sowing, cover it with a seed-harrow, going twice over it—once up and down, and once across, or anglewise; as this makes it more equally spread, and avoids the small drills made by the teeth of the harrow. Finish with the roller, which will leave the seed covered about an inch, the proper depth. The ridges should be very little raised in the centre, when the ground is ready for the seed, otherwise the crop will not ripen evenly; and when land is properly drained, there should be no ridges. The sowing of clover and grass-seeds along with the flax is not advised, when it can be conveniently avoided, as these plants always injure the root-ends of the flax. But carrots may be sown in suitable soils in drills, so that the person pulling the flax may step over the rows, which may be afterward hoed and cleaned, and should have some liquid manure. A stolen crop of rape or winter vetches may be taken after the flax. Rolling the ground after sowing, is very advisable, care being taken not to roll when the ground is so wet that the earth adheres to the roller.

Weeding.—If care has been paid to cleaning the seed and the soil, few weeds will appear; but if there be any, they must be carefully pulled. It is done in Belgium by women and children, who, with coarse cloths round their knees, creep on all fours. This injures the young plant less than walking over it—which, if done, should be by persons whose shoes are not filled with nails. They should work also facing the wind, so that the plants, laid flat by the pressure, may be blown up again, or thus be assisted to regain their upright position. The tender plant pressed one way soon recovers; but if twisted or flattened by careless weeders, it seldom rises again.

Pulling.—The time when flax should be pulled, is a point of much nicety to determine. The fibre is in the best state before the seed is quite ripe. If pulled too soon, although the fibre is fine, the great waste in scutching and hackling renders it unprofitable; and, if pulled too late, the additional yield does not compensate for the coarseness of the fibre. It may be stated, that the best time for pulling is when the seeds are beginning to change from a green to a pale brown color, and the stalk to become yellow, for about two-thirds of its height from the ground. When any of the crop is lying, and suffering from wet, it should be pulled as soon as possible, and kept by itself. So long as the ground is undrained, and imperfectly levelled before sowing, the flax will be found of different lengths. In such case, pull each length separately, and steep in separate pools, or keep it separate in the same pool. If the ground has been thorough-drained, and laid out evenly, the flax will be all of the same length. It is most essential to take time and care to keep the flax *even, like a brush,* at the root ends. This increases the value to the spinner, and of course, to the grower, who will be amply repaid by an additional price for his extra trouble. Let the handfuls of pulled flax be laid across each other diagonally, to be ready for the

Rippling—Which should be carried on at the same time, and in the same field with the pulling. If the only advantage to be derived from rippling was the comparative ease with which rippled flax is handled, the practice ought always to be adopted. But besides this, the seed is a most valuable part of the crop, being worth, if sold for the oil-mill, £3 per acre; and if used for the feeding stock, of all kinds, £4 per acre. The apparatus is very simple. The ripple consists of a row of iron teeth screwed into a block of wood. This can be procured in Belfast, or may be made by any handy blacksmith.* It is to be taken to the field where the flax is being pulled, and screwed down to the centre of a nine-feet plank, resting on two stools. The ripplers may either stand or sit astride, at opposite ends. They should be at such a distance from the comb as to permit their striking it properly and alternately. A winnowing sheet must be placed under them, to receive the bolls as they are rippled off; and then they are ready to receive the flax just pulled—the handfuls being placed diagonally, and bound up in a sheaf. The sheaf is laid down at the right hand of the rippler, and untied. He takes a handful with one hand, about six inches from the root, and a little nearer the top with the other. He spreads the top of the handful like a fan, draws the one-half of it through the comb, and the other half past the side; and by a half turn of the wrist, the same operation is repeated with the rest of the bunch. Thus the flax can be rippled without being passed more than once through the comb. He then lays the handfuls down at his left side, *each handful* crossing the other, when the sheaf should be carefully tied up and removed. The object of crossing the handfuls so carefully after rippling, when tying up the beets for the steep, is that they part freely from each other when they are taken to spread out on the grass, and not interlock and be put out of their even order, as would otherwise be the case. If the weather be dry the bolls should be kept in the field, spread on winnow-cloths, or other contrivance for drying; and if turned from time to time, they will win. Passing the bolls first through a coarse riddle, and afterward through fanners, to remove straws and leaves, will facilitate the drying. If the weather is moist, they should be taken in-doors, and spread out thinly and evenly on a barn floor, or in a loft, leaving windows and doors open, to allow a thorough current of air; and turned twice a day. When *nearly dry*, they may be taken to a corn-kiln (taking care not to raise it above summer heat), and carefully turned, until no moisture remains. By the above plan of *slow* drying, the seed has time to imbibe all the juices that remain in the husk, and become perfectly ripe. If it be taken at once from the field, and dried *hurriedly* on the kiln, these juices will be burned up, and the seed will become shrivelled and parched, little nutritious matter remaining. In fine seasons, the bolls should always be dried in the open air, the seed threshed out, and the heaviest and plumpest used for sowing or crushing. The light seeds and chaff form most wholesome and nutritious feeding for cattle. Flax ought not to be allowed to stand in the field if possible even the second day; it should be rippled as soon as pulled, and carried to the water as soon as possible, that it may not harden.

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* The best ripples are made of ⅜ inch square rods of iron, placed with the angles of iron next the ripples 3-16th of an inch asunder at the bottom, ⅝ inch at the top, and 18 inches long, to allow a sufficient spring and save much breaking of flax.

Watering.—This process requires the greatest care and attention. River water is the best. If spring water has to be used, let the pond be filled some weeks, or months, if possible, before the flax is put in, that the sun and air may soften the water. That containing iron, or other mineral substances, should never be used. If river water can be had, it need not be let into the pond sooner than the day before the flax is to be steeped. Place the flax in the pool, in one layer, somewhat sloped, and in regular rows, with the root end uppermost. Cover with moss sods, or tough old lea sods, laid perfectly close, the sheer of each fitted to the other. Before putting on the sods, a layer of rushes or rag-weeds is recommended to be placed on the flax, especially in new ponds. Thus covered, it never sinks to the bottom, nor is it affected by air or light. A small stream of water allowed to run through a pool has been found to improve its color. It will be sufficiently steeped, in an average time, from eight to fourteen days, according to the heat of the weather and the nature of the water. Every grower should learn to know when the flax has had enough of the water, as a few hours too much may injure it. It is, however, much more frequently *under*-watered than *over*-watered. The best test is the following:—Try some stalks of average thickness, by breaking the *shove*, or woody part, in two places, about six or eight inches apart, at the middle of the stalk; catch the broken bit of wood, and if it *will pull freely out, downward, for that length, without breaking or tearing the fibre, with none of the fibre adhering to it*, it is ready to take out. Make this trial every six hours, after fermentation subsides, for sometimes the change is rapid. Never lift the flax roughly from the pool, with forks or grapes, but have it carefully handed out on the bank, by men standing in the water. Spread on the same day it is taken out, unless it be raining heavily; light rain does little harm. If it cannot be spread, let it be set on end, or separated into small parcels, to prevent it heating in the heap. It is advantageous to let the flax drain for a few hours after being taken from the pool, by placing the bundles on their ends, close together, or on the flat, with a slope.

Spreading.—Select, when possible, clean, short, thick pasture ground for this operation; and mow down and remove any weeds that rise above the surface of the sward. Lay the flax evenly on the grass, and spread thin and very equally. If the directions, under the head of rippling, have been attended to, the handfuls will come readily asunder, without entangling. Turn it two or three times while on the grass (with a rod about eight feet in length, and an inch and a half in diameter), that it may not become of different shades, by the unequal action of the sun, which is often the case through inattention to this point. Turn it when there is a prospect of rain, that the flax may be beaten down a little, and thus prevented from being blown away.

Lifting.—A good test of its being ready to lift, is to rub a few stalks from the top to the bottom; and, when the wood breaks easily, and separates from the fibre, leaving it sound, it has had enough of the grass. Also, when one stalk in fifty is perceived to form *a bow and string*, from the fibre contracting and separating from the woody stalk. But the most certain way is to prove a small quantity with the hand-break, or in a flax mill. In lifting, keep the lengths straight and the ends even, otherwise great loss will occur in the rolling and scutching. Tie it up in small bundles; and if not taken soon to be scutched, it will be much improved by being put up in small stacks, loosely built, with stones or brambles in the bottom, to keep it dry, and allow a free circulation of air. Stacks built on pillars would be the best.

Drying—By fire, is *always pernicious*. If properly steeped and grassed, no such drying is necessary; but to make it ready for breaking and scutching, exposure to the sun is sufficient. In some districts, it is put to dry *on kilns*, in a damp state, and is absolutely burnt before it is dry, and the rich oily property of the flax is always greatly impaired. On this point, the Society can scarcely speak too strongly, as the flax is either destroyed or rendered not worth one-half of what it would be, if properly dried.

Breaking or Scutching—If done by hand, should be done on the Belgian system, which is less wasteful than that practised in Ireland. If by milling, the farmer will do well to select those mills in which the improved machinery has been introduced. The Society would also recommend that the farmer should endeavor to have his flax scutched by a mill owner who pays his men by the day, and not by the stone, even if it should cost him higher in proportion—the system of paying the scutchers by the stone, rendering them more anxious to do a large quantity in the day, than to produce a good yield from the straw.

The Courtrai System.—This is the universal mode in the district from which the finest flax we receive is brought. As soon as pulled, the flax is stooked without binding it. The handfuls are set up, resting against each other, the root ends spread out, and the top ends joining like the letter A, forming stooking about eight feet long, and a short strap keeping the ends firm. In this way, it will resist wind and rain well, and dry fast. In six or eight days it may be stacked in the field; the seed to be taken off at leisure, in winter; the flax to be steeped the following May—a system which possesses the advantages of affording the farmer the best season of the year for steeping and grassing, and a time of comparative leisure, when his attention is not called to the harvesting of other important crops. It has, in many cases, when tried in this country, proved highly successful although in others it has failed, from want of experience, perhaps in watering and grassing it. The treatment in this way has made the flax, in some cases, worth two or three shillings per stone more, than part of the same crop steeped green. It is recommended that trials of this system should be made, in the first instance, on a small scale.

To avoid exhausting the Land by growing Flax.—It has always been urged against flax culture that it exhausted the soil; but this is not necessarily the case. If the seed be saved, and cattle fed upon the bolls, a valuable addition will be made to the manure heap, as, perhaps, the richest manure is produced by this kind of food. The putrescent water from the flax pools should be carefully preserved, and either used as a top-dressing for grass, or mixed with the weeds, and other refuse of the crop, in a heap to ferment. By these means almost all the matter abstracted from the soil by the flax crop, would be returned in the shape of manure—the fibre being supplied by the atmosphere alone.

Flax Society's Office, Belfast, 1st January, 1845.

WESTERN CALENDAR FOR NOVEMBER.

About the beginning of this month corn is generally dry enough to crib, and all hands should be engaged in securing the crop before it is time to spread hemp for winter rotting. There are two methods of saving that which has not been cut up, and put in shock. The most expeditious method is to shuck the corn on the stalk, and pitch it directly into a wagon, and haul it to the crib. But this plan is subject to the inconvenience of putting all the corn—small and large, good and bad—together. The other plan is to gather the corn, without shucking, haul it to a place near which it is to be cribbed, and there shuck it; and assort the corn while loading the wagon, and put the different kinds in separate cribs. If there is a suitable shelter for throwing the corn under, as it is hauled, and for saving the shucks, the latter plan is the preferable one.

Much corn is cut and put in shock, which is not intended to be fed to stock. This is cut up only for the purpose of saving the fodder. This should be shucked out, when the fodder is damp, so that it may again be put in shock, and saved for winter feeding to cows, young cattle, sheep, &c.

At leisure times, during this month, and when the weather is not suitable for gathering corn, the prudent farmer should be cutting and laying in a stock of fire wood.

The first of November in latitude 39° and 40°, is the proper time to put the rams (which should have been separated at shearing time) to the ewes. This will make the lambs begin to come early in April—the time of gestation being five months. At this period the ewes will have a good bite of grass, which will occasion a flow of milk, and but very few lambs will be lost. Farther north it would be prudent to keep the bucks from the ewes till a somewhat later period. In this month preparation should be made for feeding stock during the winter, especially in the more northern latitudes. In Kentucky blue-grass pastures, which have been kept in reserve for winter use, are still very fine, and will afford abundance of food for all kinds of stock. A. Beatty.

Prospect Hill, Ky.

TRANSACTIONS OF THE STATE AGRICULTURAL SOCIETY.

I observe in the October No. of the Cultivator, a reply to my remarks in your September No., on the Transactions. The tone of the reply indicates more than I had thought there could be in this matter. My remarks pointed to the Society and its interests, and to the proper preparation of its Transactions for publication. The editor of the Cultivator makes them personal to himself. Not intending to attack any person, it seems I have unwittingly hit the editor of the Cultivator. The wounded bird flutters, and thus betrays itself. My object was alone to call attention to the volume of Transactions of last year, and secure proper ones for the future. But I am deemed as attacking in an "ungentlemanly" manner "one of the best agricultural writers and most estimable men in the State." As to "ungentlemanly attack," everything seems to be *ungentlemanly* in the eyes of the Cultivator which criticizes itself or friends, however fairly or justly. It would probably have the world believe if it could, that they monopolized all the good breeding of the land, as well as the patronage of the agricultural community. I believe, Mr. Editor, that in pure mockery, you denominated the Cultivator the "agricultural Chesterfield of the age." It probably took this in serious part, and its vanity really made it believe itself so in earnest. But we will let this very potent and stereotyped argument pass for what it is worth. I had heard it said, and frequently, that the State Society had the appearance of being managed to promote the private interests of certain persons. I wished that the Society should no longer be subject to this censure.

The committee of publication consisted of Dr. Beekman, and the editors of the Cultivator and Genesee Farmer. The gentleman who was employed by that committee is an assistant editor of the Cultivator. The Cultivator is printed by Mr. Van Benthuysen, the *actual* printer to the Senate. (The nominal printer to the Senate is Mr. Mack, of the Senate, who sells his contract to Mr. Van Benthuysen at a profit of 15 per cent.) The profit of printing the last volume of Transactions has been stated to me by a printer at $2,000. About $7,000 were received for it by the printer to the Senate. Cook and Carrol, the printers to the assembly, offered to print it for $4,000. If $4,000 be the expense of printing it, then Mr. Mack could receive his 15 per cent., and leave to Mr. Van Benthuysen $2,000 profit out of the $7,000. Prior to the session of the legislature of 1844, the Executive Committee of the Society, by law, had to report to the Secretary of State, and he sent the report to either the Senate or the assembly as he chose. In 1844, it was sent to the House, and printed of course, *not* by Mr. Van Benthuysen. In 1844, a little clause was added to a law, which purported to be passed for another purpose, by which the Executive Committee were allowed to send the Transactions to *the Legislature*. The Executive Committee, among others, included all of the publishing Committee. When the Transactions were completed, they went directly to the Senate, and were printed by Mr. Van Benthuysen, the printer of the Cultivator.

It was a matter of public notoriety at Albany last winter that an attempt was made by a *part* of the Executive Committee to have the Transactions sent to the House; and that others, not of the Committee, desired they should take that direction. With this view some action was attempted in the House, but was defeated *mainly* by Mr. Comstock, a member from Oneida County. The Central New York Farmer had been (prior to this) merged in the Cultivator; and one of its editors, Mr. Comstock (brother of the Mr. Comstock above, in the legislature), is now connected with the Cultivator editorially, or as a correspondent, Mr. Johnson, the other editor, was of the Executive Committee. In addition to this, Dr Lee was by the Executive Committee made official lecturer to the State Society, and was to receive for sale in his lecturing excursions, a certain number of the volumes of the Transactions for his own benefit.

Now here was, whether intended or not, a varied combination of men and circumstances, pointing all to the Cultivator. I am aware that the Editor of the Cultivator received no salary of the State Society as Recording Secretary. If he has received no compensation *indirectly*, his labors have been *highly disinterested!* He asserts that "all his labors in behalf of the Society for three years were bestowed without fee or reward." He himself here makes a new issue. Let me ask if he did not receive $1,000, or a sum nearly equivalent to this, for *merely reading* the proof sheets of the Transactions of the Society for last year? If he did not, it is strange, for he himself is the authority for it. When urging that the Transactions should be sent to the Senate (to which Dr. Beekman was opposed throughout, and Dr. Lee at first, both desiring them to go to the House; but subsequently Dr. Lee changed positions, and voted for their transmission to the Senate) he remarked to a fellow-Executive-Committee-man, who desired the report to go to the House, that its being sent to the Senate would benefit him (the Editor of the Cultivator) a thousand dollars. Was not that $1,000 received from Mr. Van Benthuysen for reading proofs? If so, were not his official position and the patronage of the Society used to assist the Cultivator or its editor?

Again: his friends have asserted that the position of Recording Secretary alone brought 1500 subscribers to the Cultivator. If his friends knew this, he was undoubtedly the source of their knowledge. Then his service is indeed *disinterested!* Better that there should be a "*fee and reward*," for then there might not be a perversion of official patronage to pay for labor that apparently was done of mere good will. The evidence that his friends (in interest, if nothing else) have urged that he should be Secretary to benefit the Cultivator is *not verbal*, and is in possession, and can be produced at once if it be necessary.

There is connected with this subject another matter well worthy of attention. Hitherto, no person has been (and it has been said no person could be) an influential member in the Society unless he had that connection with the Cultivator, which springs from subscription or indefinite friendly relations. If it be a direct result of a design and action in pursuance, then have persons been victimised that there might be an indirect substitute for a direct "fee and reward."

A curious part of this whole system of no "fee or reward," was witnessed at Albany last winter. A bill was introduced into the House, directing every County Superintendent of Common Schools in the State, to subscribe for as many copies of the Cultivator as there were school districts in their counties. The subscription and postage to be paid by the State out of the School funds. And how was all this to be effected? By these very relations; by the exercise of that influence which springs from the possession of executive patronage. The committee of the House, to which the bill was referred, reported it back and advocated its passage; and every man who stood in a position to the Cultivator of either interest or *indefinite friendly relations*, was found urging it in the lobby or the House. However, the good sense of the House killed the bill. This, if it had passed, would have given 12,000 additional subscribers to the Cultivator, with the pay certain, and subject to no commissions. This was a "*fee and reward*" worth working for, and evinced a most decided *disinterestedness!*

The reply of the editor of the Cultivator is professedly a defence of Mr. Thomas, his co-editor, but is one in effect of himself. I have not found fault with Mr. Thomas for inserting his prize essays. I congratulate him on his *good fortune* in winning *so many* of the prizes awarded by the Executive Committee for essays; and it was the duty of the Society to publish them, and in this, Mr. Thomas, as compiler, had no duties to perform. And yet, from the circumstances that have surrounded the whole matter of the preparation and publication of the Transactions of last year, some persons have censured the Executive Committee in reference to these very prize essays, it having been said, that although the Committee had no names appended to the reports, they knew the handwriting of Mr. Thomas, and were some of them led in that direction by that knowledge. All this is wrong, and it may be that even his essays were not in his hand-writing. But it illustrates this one truth, that when matters of this kind look suspicious, in one particular, the world will deem them suspicious in all.

My object was to urge the publication of the *real Transactions* of the Society hereafter. Instead of these the publishing Committee and Mr. Thomas in conjunction in the last volume, have substituted speeches, theoretical speculations, and essays on the agriculture of distant States. Are these *Transactions?* No! Why then publish them?

The position I assumed is admitted by the reply of the Cultivator; and all the evasion of coming to the rescue of Mr. Thomas, who has not been assailed, is mere subterfuge to direct attention from the main point to Mr. Thomas and secure sympathy for him I asked if it were not giving undue advantage to the papers edited by the Recording and Corresponding Secretaries of the State Society, that they should be allowed to appropriate to themselves the patronage of the Society. This is not met, but a new issue is raised. Is it not evident from the statement I have now made that this is true?

In conclusion, are not the Transactions public property? Are not the gentlemen who assume to prepare them, accountable to the public for the proper discharge of their duties? The State pays thousands of dollars every year to publish the volume of Transactions; and however much the editor of the Cultivator may wince, the just expenditure of the people's money will be looked to by those who know something of the matter as well as himself. The light cannot be hid under a bushel; and I will not stand by for one, and see the noble Agricultural Society of this State, like too many things in New York, be made a selfish tool of, and turned from its grand design of advancing the public good on the broadest possible basis, without lifting my warning voice against the measure.

We shall now see what the Cultivator has to say to this, and, perhaps, in my next, if it becomes necessary, and it be not deemed too "ungentlemanly," I may undertake to show how much and how many ideas of certain prize essays have been *plagiarised* from others, and foisted on to the Society as *original* and paid for in solid gold. Indeed, I consider the whole thing, a sort of Cultivator monopoly, and managed at present, almost entirely for the benefit of a favored few.

New York, Oct. 1845. A Member.

Mount Hope Botanic Garden and Nurseries, Rochester, New York.—We have received catalogues from Messrs. Ellwanger & Barry, the proprietors of this extensive and very complete establishment, and shall be pleased to distribute them. This is one of the best nurseries and gardens in Western New York, abounding with excellent varieties of fruit, &c., and we heartily commend it to attention.

Ladies' Department.

ADVICE TO WESTERN EMIGRANTS.

Will that portion of your female readers who are intending to leave the "old homestead," and seek "a new home in the West," accept of a little plain advice from one who has grown grey in the emigrant's log cabin, and if from experience he has learnt wisdom, will be able to give advice which will be practically useful.

In the first place why are you going to the West?—For I hold it to be "self-evident" that no good husband will abandon the old home for a new one, contrary to the wishes of his wife, and therefore the question is to her.

If the object is mainly to find husbands for those "young ladies" who, in consequence of false pride, and foolish fashion, have been reared in idleness, and taught "all the accomplishments of a fashionable boarding school," let me tell you that you are going to an overstocked market. There is but a very small portion of the inhabitants of an old country that make good pioneers in a new one.

Notwithstanding we have unnumbered acres of rich soil at the West, I never can advise an eastern farmer who is able to "make both ends meet," to become an emigrant: for if he will exercise the same frugality and cheap mode of living that he will be compelled to when he gets into his new log cabin, he can remain comfortable where he is, and ought to be contented and happy. He ought to bear in mind that all those rich acres are only the *raw material*, out of which farms are to be created; and he ought to know, but more particularly his wife and daughter ought to know, that they will have to endure many deprivations and hardships in a log cabin, that never were dreamed of in a carpeted parlor with its piano and other accompaniments. Although there are many who "make matters worse," there are others who make them better by emigrating. Don't understand me that I think none but those who are so poor that they cannot live here can better themselves by emigrating. Far from it. It is capital that we most need at the West, and it is there that it can be most profitably used. And there are thousands of farmers in the Eastern States whose farms are under mortgage so heavy, that they labor year after year without any other hope than keeping the interest from accumulating upon the principal, and yet they might sell and save enough to make a comfortable home in the West. It is such who ought to emigrate, and it is the duty of the wife and daughter of such to say, "husband—father—sell the old farm and let us all go to the West."

This is a wise resolution. The hardest part of the task is, however, starting, and the determination to do that, accomplishes one half. Now this family, raised in comparative luxury, stand most in need of advice.

First, as to what they shall take.—Ah, my dear girls, wipe away those tears. I see you divine that I am going to tell you that you must leave the piano. Yes, you won't need it. True it cost $150 or perhaps $300, money foolishly laid out, too, on account in part for which "that mortgage" was given, and it will now only bring half the money; but that will buy 120 acres of the richest kind of the western soil. You don't know how much an elegant piece of furniture of this kind looks out of place in a log cabin. I do. During my travels last winter, I came upon a lonely cabin all unadorned by plant or shrub, and against the rough black logs, and upon the rough puncheon floor, stood a costly piano. The wife had been raised in luxury, fitted for life with a finished education, which naturally unfitted her now, without servants to take care of her humble house and growing family. And what use had she for a piano? None whatever. But before marriage it had been her dearest friend, and now her parents, thinking to make her a most acceptable present, had sent her this old friend (dear at the cost of freight), soon to be ruined under its rough shelter. Half its cost in necessary and useful articles, would have been far more valuable. I now speak to the farmers who expect and intend to occupy a log cabin in the West. In preparing then to emigrate, dispose of all costly, easily damaged articles of furniture. Take no tables, chairs, bedsteads, sofas, bureaus, except, perhaps, one very plain one, well packed, for upon all such articles you will have to pay freight by the pound. Sell the china and cut glass, and pack up only what you now call the kitchen, table, and cooking furniture. Don't take, to break, those great gilt looking glasses; cheaper ones will look as well, in which you will look as well as in better.—A rag carpet must be substituted for those for which "that mortgage" was given. Yes, certainly, the book-case must go, and let it be well filled and don't forget to leave the needful with the printer to induce him to continue to send "the paper" to your new home in the west.—Beds and bedding carefully packed in tight boxes or barrels, and in the proper way, and let every article be put up and plainly directed. Don't say it is not necessary because you are going with the things and can see to them; you might as well undertake to see to a whirlwind, and in that your moveables would not be handled more roughly than they will upon drays, canal boats, steamboats, and wagons, before they are finally tumbled out in a heap at the door of your new home. I do not object, ladies, to your taking all those rich dresses. But I do object to your taking them in any other way than under safe lock and key. For your journey, have nothing in use more costly than plain calico.

And now, girls, as you cannot well cultivate instrumental music in a log cabin, nor sport your silks and prunellas through the abundant black mud of a rich western soil, so as to occupy all your time, let me assure you that in that soil you can cultivate lovely flowers, and beautiful shrubs, vines and fruits; and soon cover over the "ugly black walls" of your new house, with climbing roses and fragrant honeysuckles. So be sure that for this you go well provided. You may as well lay in a good supply of "small fixings" such as threads, needles, pins, tape, &c.; but all the larger articles of merchandise, and such articles of furniture as you will really need, you can get in any of the large towns near your new location.

My advice is, that you take nothing (excepting articles in the clothing line) that will be superfluous in a log cabin. "But," I hear you say, "surely chairs, tables, and bedsteads, which you direct us not to take, are not superfluous." Oh, no; very plain cheap ones are not so. I only want you to count the cost of carriage, and risk of injury and loss, before you decide to move lumber of any kind.

Another piece of advice, that is very necessary for your happiness to be strictly followed, is, that you come to a full determination, that happen what will of perplexity or privation, you will keep up a continual cheerful spirit. This also is due to your husband and father, who will need all the smiles and love of his wife and children, to enable him to endure the toil and trouble of making you a new home, that in a few years will compensate you all for the temporary inconveniences that you have *enjoyed*—yes, enjoyed, not suffered; for I assure you that you can enjoy inconveniences. My wife, God bless her, often says that she never enjoyed any portion of her life better than she did the first winter upon the prairie, where we now live; when she had only a low log cabin, sixteen feet square, which had not a sawed board about it; being built of round poles, the cracks filled with mud; the chimney built of sticks and clay; around the warm hearth of which often had we half a score of emigrants, who had nowhere else to shelter themselves from the blasts of a wintry night; for be it remembered, that we began our emigrant's life "fifteen miles from neighbors," and enjoyed it cheerfully. So my dear friends, can you.

I could advise further, but nobody likes unasked advice. Believe me, your old friend of Indiana,

New York, Oct. 6th, 1845. SOLON ROBINSON.

A DELICIOUS APPLE-PUDDING; Very convenient, as it may be made several hours before it is baked, or when a nice addition is wanted unexpectedly.—Pare and chop fine, half a dozen or more, according to their size, of the best cooking apples—grease a pudding-dish, cover the bottom and sides half an inch thick with grated bread, and very small lumps of butter: then put a layer of apples with sugar and nutmeg, and repeat the layers until the dish is heaped full. Before adding the last layer, which must be of bread and butter, pour over the whole, a teaspoonful of cold water. Put it into the oven as soon as dinner is served, and bake it for 25 or 30 minutes. It may be baked the day before it is wanted; when it must be heated thoroughly, turned into a shallow dish, and sprinkled with powdered sugar. It requires no sauce.

TO PICKLE EGGS.—Any that are left from market and not wanted for immediate use, make a nice and very pretty pickle to garnish cold meat with. Boil them until quite hard, take off the shells, put them carefully in large mouthed jars, and cover them with cold vinegar, and they will keep well for several months. If white wine vinegar is used, they will retain their whiteness; they may be made a beautiful yellow, and the flavor improved by the addition of yellow mustard powdered, or a fine red, by using vinegar in which beets have been kept.

SPICED VINEGAR.—This is preferred by some persons, and may be made by heating vinegar in a jar, set in a pot of cold water, which must be heated to boiling. Put in whole pepper, cloves of garlic, race ginger, cloves, salt; keep it closely covered until quite cold, and bottle for use.

Boys' Department.

THE HISTORY OF THRIFT AND UNTHRIFT.

(*Continued from page* 322.)

Josey's Farming.—With Josey, or as we must now dignify him, Mr. Unthrift, things were quite different. He was going down-hill while Thrift was going up; yet he took it as easy as he used to do his whippings at school, and thought himself equally as little to blame now as then; in short, "it was all his luck," as he used to say.

His fences were seldom all up at the same time; and when they were repaired, which was never done till the last minute, they were just hitched together, so that the first unruly ox that came along, would tumble them over if he squinted very hard at the dwindled, stunted crops, growing on the other side. Indeed, the poverty-stricken appearance of the crops themselves, more often prevented depredation than the fences. He got up late, had his breakfast late, and never went out to work before he ate it. By this time, the dew was off, and none of it was hoed into the ground, or moistened the grass to make the scythe cut easier. He plowed late, sowed late, planted late, and harvested late; but he had one great advantage in all this, for he had so little to gather, that it never took a great while to secure his crops; or if the storms, snow, or ice, did get them at last, he always consoled himself with the idea, "that really he hadn't lost much—they were hardly worth gathering" He had a very good orchard on his farm ten years before, thanks to the owner who preceded him, but the wind had broken off some of the branches, and for want of trimming, the broken and dead limbs had rotted down to the trunks, and made the bodies quite rotten, and the fruit itself had become stunted and wormy, and didn't bear much of any; and the few it bore, were only fit for the hogs, which, for the want of suitable attention, matched very well with the apples. These he had procured by years of breeding, peculiar to many of the farmers. He always killed the best pigs because they were fattest, and as soon as he got one into the pen that would not fat at all, he said she would have pigs just as well as any others, and 'twas a pity to save the best, as they were worth something for pork. His sheep were neglected and got the scab. He consoled himself by denouncing the whole flock as a mis-begotten race, and unworthy his regard, and turned them on to the common, where the dogs and crows soon removed both sheep and scab together. His cattle became poor from short allowance and want of attention; and as misery loves company, poverty was soon followed by lice, and thinking them too degenerate for the attention of a man of his expectations, he called them a lousy, drivelling race of Pharaoh's lean kine, and traded them off for anything he could get in exchange, old muskets, fish-nets, and a trooper's second-hand rig. His house was leaky, wanted shingling, but in rainy weather he couldn't go out to do it, and when it was fair he didn't want it; so his wife was taken sick from damp rooms, his children had the scarlet fever, and he got a confirmed rheumatism which lasted him for life. The remainder of Thrift and Unthrift's career shall be given in your next volume; in the meanwhile I hope all your young readers will take lesson from what is already inscribed them by

A FRIEND TO THE BOYS.

FOREIGN AGRICULTURAL NEWS.

By the arrival of the steamship Hibernia, we have our file of European journals up to October 4th.

Markets.—*Ashes* were brisk at an advance. *Cotton* had fallen ½d per lb., and was dull. The stock on hand at Liverpool, on the 1st of October, was 947,000 bales, against 901,000 same period last year. *Beef* in good demand at an advance. *Pork* the same. *Lard* as per our last. *Cheese* on the rise, and a light stock of all kinds of provisions on hand in England. *Flour* had fallen a trifle, but was in good demand. *Hemp* lower. *Rice* dull. *Tobacco* a fair inquiry. *Wool* brisk. The introduction of the wools of the United States into England is a new feature in this branch of business; and the success which has hitherto attended the speculation must lead to a more extensive import from this side of the Atlantic.

Money is in considerable demand, and the rate of interest has advanced as high as 3 and 4 per cent. This is owing entirely to the insane spirit of railroad speculation.

The Weather.—Just before the sailing of the packet the weather cleared up and was considered favorable. It is conceded, however, that the wheat crop is below an average. Potatoes are a poor yield in Great Britain and on the Continent, having suffered much from the rot.

Death of Earl Spencer—formerly Lord Althorp.—This excellent nobleman, and distinguished farmer, and stock breeder, died at his favorite country-seat, Wiseton Hall, on the 1st of October. His disease was gout in the stomach. He was for some time the leader of the Whig party in the House of Commons, and Chancellor of the Exchequer during Earl Grey's ministry. Latterly he had taken little interest in politics, save in the beneficent movements for repealing the corn laws, but had devoted himself to the rearing of stock, and the great interests of the improvement of agriculture. He will be deeply lamented by the farmers of England, for few are able and at the same time willing to take his place. He was a widower, and died without issue, in his 64th year. He was a man of fine personal appearance, and although so long in public life, he was diffident and retiring in his manners to a fault. We presume his brother, the Hon. Capt. Spencer of the Navy, succeeds to the title.

Home Manures.—Is it generally supposed that beds of rivers and brooks fill up or wear away, and become deeper by age? Or do they remain the same? If they fill up as I am inclined to think, how much may be gained by deepening and spreading the finest alluvial soil on the adjoining meadows, as well as gaining a greater fall for inland draining. We read also of clearing away peat earth by running water and floating it out to sea—an entire waste—in order to uncover and bring into cultivation the soil below. Now, if we put ourselves to so much expense in guano and chemical preparations, is it not rather surprising that it should not have occurred to hundreds that this very peat would be the finest possible manure on sandy and clay soils? and would be more durable than any animal manure whatever. The drifting and blowing sands on our sea-coasts, particularly about Liverpool, might be advantageously covered with peat, and the peat land again with this sand to the great advantage of both occupiers; so might also the sea beach about Lid lighthouse and Pevensea levels be covered and brought into use. And where lime has been used for ages the peat would be the very best manure that could be used, to restore that vegetable portion of the soil that the lime has destroyed. This, it appears to me, would be a source of home trade more beneficial by far than the distant and disappointing guano trade where so many ships are unable to procure cargoes, and mix up their half ship loads with sand and loam, to the injury and disappointment of us poor farmers.—*Gar. Chron.*

Weeds on Gravel Walks.—Seeing in your columns receipts for eradicating weeds on gravel walks, and thinking "prevention better than cure," I beg to mention a plan which I have always found to answer. It is simply, when forming your gravel walks, and before laying on the gravel, to spread a layer of the dark-colored soapwaste, which may be got from any soapery, if in the neighborhood, and then putting the gravel on it and rolling both of them, after spreading, as firmly as possible. This will not only prevent weeds from growing, but will form a walk as hard and solid as cement.—*Ibid.*

New Clover.—Two new clovers have been attracting attention in France, concerning which we find some information by M. Vilmorin, in the *Bon Jardinier*; one is the hybrid and the other the elegant. Elegant-clover was for some time considered identical with one called T. hybridum, cultivated in Sweden; when, however, growing together, the differences are striking: the latter is larger in all its parts than the former, and the color of its flowers is a brighter rose, shaded with white in the centre, while the elegant-trefoil has rather dull reddish rose blossoms, colored alike in every part of the flowerhead. The appearance of the herbage is different: the hybrid-clover has bright and dark foliage, and that of the elegant is pale and unequal; the leaflets of the latter are also marked with a brown band like common clover, which is not the case with the hybrid. Another character of the hybrid is that, in the summer, when it begins to shed its blossoms, and during the autumn, the root throws out fresh foliage, arranged like a rosette; but in the elegant-trefoil this does not occur: it is the lateral branches which rest on the ground that supply the verdure. The hybrid-trefoil also flowers fifteen days earlier than the other, which, however, lasts the longest, and branches more; lastly the former is taller, more beautiful, and comes in earlier; but when the latter has arrived at perfection, having more numerous stems, well covered with branches, and more solid, it will, when mown, yield as great a produce as the former. The hybrid-trefoil has been a great deal used by M. de Kruns in the formation of artificial fields at Orebro in Sweden, and it has succeeded well; it has grown from three to four feet high, and has yielded, during about twenty years, often more than 100 000 pounds per tunnland (about an acre and a quarter English), and always upwards of 5,000 for the first ten years. It is regarded as a plant equally suitable to cultivate for mowing and for pasturage; strong moist soils, argillaceous or calcareous, suit it well; it frequently comes spontaneously on lands in Sweden that have been drained. The elegant-trefoil is found in abundance on poor clayey strong soils, where it grows thick and vigorous; it is wild in France in many places, not unfrequently in ferruginous sand. It seems very probable that the species will one day form valuable additions to our forage plants, as they appear as though they would succeed on land unsuitable for clover, lucerne, and sainfoin.——*Edin. Journ of Ag.*

Application of Lime.—It seems clear, from all that has been said and done about lime, that it should be very cautiously used on light land, and that even on strong land great damage *may* be done, though it may not be perceived. Last summer I applied 120 bushels per acre to 24 acres, but I am convinced it was not *economical* to do so. The land was strong clay, and not drained. I intend in future to drain first, and make more moderate applications and oftener. I am convinced that the great value of some limestones depends on the phosphoric acid they contain, though I certainly do not, like Liebig, estimate the value of *turnips* by the quantity of this substance they contain.—*Ib.*

Application of Steam Power to Agriculture.—At a late meeting of the Farmer's Club at Wakefield, Mr. Heanley said: Steam power is one of the agents which has advanced the manufacturing, the mining, and the maritime interests of our country. Why is it not applied to agriculture? A great saving can be effected by using steam for thrashing, grinding, chopping hay or straw, and steaming food for cattle:—On thrashing corn by steam power, the saving is 2*d.* per load, for if wheat costs 5*d.* per load by horse power, it can be thrashed for 3*d.* per load by steam. I speak from experience of the last two years. Another advantage is a portion of the crop might be thrashed out immediately as it is carried from the field; Wheat carried immediately from the field measures better than at any other time; and in this respect is in the most profitable state for selling upon the general average of years. By the application of steam thrashing the farmer would have it in his power to sell his corn at the time it fetches the highest price, and this could only be partially done by the application of horse-power.

I make the difference in cost of steam thrashing and that done by horses as follows.—

BY STEAM POWER SAY

3 men at 2*s.* per day,	£0	6	0
2 women at 1*s.* do.,	0	2	0
2 lads at 6*d.* and 8*d.* do.	0	1	2
Oil for machine and engine,	0	0	10
Coals and slack for engine fire,	0	1	6
Allow for wear and tear,	0	3	6
	£0	15	0

Thrashing 60 loads per day would be 3*d* per load.

BY HORSE POWER.

3 men at 2*s.* per day,	£0	6	0
2 women at 1*s.* do.,	0	2	0
2 lads at 6*d.* and 8*d.* do.,	0	1	2
Oil,	0	0	4
8 horses at 2*s.* do.,	0	16	0
	£1	5	6

Which makes it cost a fraction more than 5*d.* per load of 3 bushels.

	£	*s.*	*d.*
The cost of an engine and thrashing-machine fixed ready for work is,	125	0	0
The cost of horse thrashing-machine, &c. about	90	0	0
Extra cost of engine,	35	0	0

Mr. Andrews, of Kirkham Lodge, said: I calculate a horse cannot last on an average above 15 years, whilst an engine with moderate care will last 100 years. Horses, whether working or not, are expensive in keeping; but when an engine stands still, it is costing nothing A four-horse engine will do more work than eight horses—I mean yoked at the same time—for they never are all of one mind for pulling together. I recollect once employing 18 horses to do some work, that is, six at a time, in three sets, relieving each other as they required it; but it proved tiring work. I put up a six-horse engine and it did the same work well. Ten per cent. upon the first cost will keep an engine in repair which works every day for 20 years; but the cost of those used for farming purposes, as has been stated, may be about 7 per cent.—*Gar. Chron.*

Large Strawberries again—The Rev. E. Smythe, of Elkington, near Louth, Lincolnshire, informed me that he cut one a short time ago, weighing 2¼ oz., and that at the same time there were two others partially destroyed, which he is quite sure would have weighed as much. This one of 2¼ oz. measured 9¼ inches in circumference. It was seen by several gentlemen, there being at that time a cricket match close by. Mr. Smythe also says, that during the season he thinks he had eight which would have weighed 2 oz. each. I believe Mr. Smythe adopted the method I have done some time with every kind of strawberry; it is the late Mr. Knight's plan Runners are taken from an old bed, and planted in the spring; no runners or blossoms are allowed for the first year. The second year of growth is their first and last for bearing fruit. In consequence of the organizable matter stored up in the plants during a full summer's growth, without any abstractions by runner or blossom, a greater quantity of fruit, and superior in quality, will be obtained the first bearing season than during any future season; therefore, my motto is, why not always have the most fruit, and crop strawberries like any other vegetable? *Ibid.*

To make Potato Starch.—Potato starch is made by cleansing the tubers, grating or rasping them, and washing the pulp so produced in a sieve; the water as it runs through the sieve carries with it the starch, which settles to the bottom if the water is allowed to stand for a short time, in a tub or vat. The water having been poured off, fresh water is added, and the starch stirred up and again allowed to settle, after which the water is poured off, the starch set to drain, and finally dried. The sound parts of diseased potatoes may be used for this purpose, but the starch must be well washed, and not suffered to remain longer than possible in the first liquid; and the slime or foul scum which collects at the top of the deposited starch must be carefully removed, otherwise the starch will be very liable to spoil. No more potato pulp should be made than can be washed at once, and the pulp should be washed as soon as possible, because, if kept, it very soon begins to ferment and putrify.—*Ibid.*

Superior Method of Preparing Potatoes for Feeding Stock.—Mr. Böggild of Copenhagen, washes his potatoes well, steams them thoroughly, and then, *without allowing them to cool*, he cuts them in a cylinder furnished internally with revolving knives, or crushes them in a mill, and mixes them with a small quantity of water and three pounds of ground malt to every 100 lbs. of the raw potatoes. This mixture is kept in motion and at a temperature of 1·0° to 180° F., for from one to five hours, when the thick gruel has acquired a sweet taste and is ready for use. Given in this state, the results of experimental trials are said to be—1st, That it is a richer and better food for milk-cows than twice the quantity of potatoes in the raw state.—2d, That it is excellent for fattening cattle and sheep, and for winter food; that it goes much farther than potatoes when merely steamed; and that it may be economically mixed up with chopped hay and straw. *Edinburgh Jour. of Agriculture.*

Tallow and Train-Oil as a Salve for Sheep.—In the Highland and Agricultural Society's Transactions for 1844, pages 271-273, an article appeared, recommending the use of tallow and train-oil, in equal parts, as a salve for sheep; and, in reference to that article, a gentleman in Argyleshire, skilled in the management of sheep, writes as follows, under date the 9th July last: "The salve I used for my sheep last autumn (viz. one half tallow to an equal proportion of train-oil), has, in every respect, answered the description given of it in the Society's Transactions; and one of my tenants whom, with some persuasion, I got to smear thirty of his flock with that mixture, admits that they are in better condition than any of the others; that the wool will weigh as heavy as that done with tar and butter; and that he will get the price of white wool for it. The expense last year was a little greater than tar and butter, as I paid 1s. 6d. a pint for oil, and 6d. a pound for tallow, but this year I shall get oil for 1s. a pint, and if a quantity is required, at probably a lower price.—*Ib.*

Prodigious Mushroom.—A mushroom was recently gathered in a pasture adjoining Brightnell Park which measured 3 ft. 4 in. in circumference, and weighed 1⅝ lb.

Editor's Table.

Sale of Devon Cattle.—When attending the late State Cattle Show at Utica, and witnessing there the beautiful exhibition of pure North Devons belonging to Messrs. Beck, Garbutt, and Washburn, being the first, in any number, ever shown at the State Society, we felt certain that their sterling merits would soon be appreciated by our New York farmers. We are not surprised, therefore, in learning, by a friend from our western counties, that Messrs. S. M Brown and G. A. Mason, of Elbridge, Onondaga County, on the 15th September, purchased of Messrs. Garbutt & Beck at their farm in Sheldon, Wyoming County, sixteen of their beautiful animals for the purpose of stocking their own farms in Onondaga. These animals consisted of seven breeding cows, one two year old, and one yearling heifers, two heifer calves, one yearling bull, and two bull calves; and one pair three year old matched steers. The prices, although comporting with the times, we learn, were satisfactory to both the sellers and purchasers.

These Devons are walking into the rich and heavy soils of our wealthiest agricultural regions, where the lordly Short-horns have long ago taken possession, and near which some of their most spirited breeders reside. But of the results of their trial, we have no fear. They will maintain their reputation and increase in the good opinion of the farmer and cattle-breeder wherever they are. Messrs. Brown & Mason are extensive farmers, who well understand what they are about, and we feel quite certain, that the interest they have shown in thus appropriating the Devons to their own use, will be abundantly rewarded in the future prosperity of their herd. We should have noticed in our last number, that the pen of six beautiful Devon bull calves shown by Mr. Washburn, of Otsego, were all sold at good prices on the ground, to practical farmers, for the improvement of their own herds. Indeed, we have no doubt that this one exhibition of Devons at Utica has given them greater favor with the public than they have won in the hands of their breeders for the last ten years put together.

The beautiful exhibition of Devons at the late show of the State Agricultural Society, was the result of the wisdom of the Executive Committee in enlarging last year the premium list for the different breeds of cattle, without which scarcely a Devon would ever have been on the ground, and to that exhibition is to be credited the sales which we have chronicled. Success, say we, to the Devons, and to their spirited breeders.

Working Oxen.—We learn, also, that the Messrs. Wadsworth, of Geneseo, who took the first premium for the ten best yoke of working oxen, sold every pair of them on the ground at liberal prices. They were superb animals all, and their ready sale shows that such spirited exertions will be abundantly sustained by a discriminating public. Would time permit, we could also notice many other sales of stock, which, we learn, were made at prices satisfactory to both sellers and purchasers. Another year we hope to have an accurate report of all the business transactions of the "three great days" of the State Cattle Show. There is no calculating the value of these State exhibitions to the farming community, and we count upon a heavy increase in the future sales at the annual cattle shows. Let one day—an additional one, and the last—be set apart for this purpose by the Society, and we will be bound it will be among the most useful and profitable of all.

Colman's European Agricultural Tour.—Part IV. of this excellent work has been laid upon our table. Published by A. D. Phelps, Boston. Saxton & Miles, Agents in New York. We are glad to see that Mr. Colman has at length come to the more practical part of the agriculture of Great Britain, and has made this, according to our views, the most valuable number of his Tour yet issued. We have so often spoken of the merits of this work, and it has become so well known to our readers, that a more extended notice of it will not be demanded from us.

Views, with Ground Plans, of the Highland Cottages at Roxbury. Designed and erected by Wm. Bailey Lang. For sale by Saxton & Miles, 205 Broadway, and the Booksellers generally in this city. Price $1 50. This is a beautiful quarto, containing twelve lithographic views of cottages and their ground plans, an observatory, rural bowers, &c. As a specimen of the elegant manner in which it is got up we would refer to Bute Cottage, page 345 of this number of the Agriculturist. Mr. Lang deserves much credit for his enterprise in publishing this work, and we think it will have a salutary influence in improving the public taste in rural architecture We are under obligations to Samuel C. Hills, Esq., No. 12 Platt street, for our copy of the above views, he taking great interest in such matters.

Peach Culture in Delaware.—This has become an enormous business, Major Reybold, of Delaware city, being the largest producer of them in this country. A friend informs us, that he and his four sons shipped in a single day in August last, 5,420 baskets, holding about three pecks each, from their orchards.

The Reybold family have about 1200 acres in peach trees. The total amount that they have sent to market this season we cannot state; but on the 1st of September, it had reached the enormous number of *sixty-five thousand* baskets. On the 9th of October, they were still gathering the crop. During the most busy part of the picking season, they chartered a large steamboat to carry their peaches to the New York market. We have only mentioned one family, of the many engaged in this business. It would be very interesting if we could have the total amount of peaches that have been sent from Delaware during the season of 1845. We intended to visit that county the past season. but have been prevented doing so. We hope to bring it about another year.

The Bound Volumes of the American Agriculturist.—These can be had at the Agricultural Warehouse of Mr. J. Thompson, Charleston, S. C., who will also receive subscriptions for the same in numbers.

Mr. Solon Robinson wishes us to say, in explanation to his Agricultural friends in this vicinity, that his continued ill health has prevented his calling on many to whom he was under obligations to do so. He is now on his way home, and will leave there on his Southern tour on the 1st of December.

To Agricultural Societies.—We received many invitations the past month to attend the annual meetings of various Agricultural Societies; but from our numerous engagements at home, it was not possible to accept them. We are much obliged to our friends for their polite invitations, and are happy to learn that an increased attention is being paid, throughout the country, to agricultural meetings of all kinds. Owing to the crowded state of our columns, and the expectation of our readers that we shall publish such articles as more generally interest them, we are precluded from taking as much notice of county Agricultural Societies, as we should be glad to do if our paper possessed more of a local character.

To Correspondents.—Philetus Phillips, E. S., John P. Norton, S. S. W. Vick, R. L. A., Improver, are received. The second No. of the articles on the Herefords and the farm management of Mr. Sotham is in hand, but owing to the absence of the writer from the city, was too late for this number. It will appear in our next.

REVIEW OF THE MARKET.

PRICES CURRENT IN NEW YORK, OCTOBER 25, 1845.

ASHES, Pots,	per 100 lbs.	$3 87½	to	$3 94
Pearls,	do.	4 12½	“	4 19
BALE ROPE,	lb.	5	“	7
BARK, Quercitron,	ton,	24 00	“	24 50
BEANS, White,	bush.	1 12	“	1 25
BEESWAX, Am. Yellow,	lb.	28	“	33
BOLT ROPE,	do.	12	“	13
BONES, ground,	bush.	40	“	55
BRISTLES, American,	lb.	25	“	65
BUTTER, Table,	do.	16		25
Shipping,	do.	9	“	13
CANDLES, Mould, Tallow,	do.	9	“	11
Sperm,	do.	25	“	38
Stearine,	do.	20	“	25
CHEESE,	do.	4	“	8
COAL, Anthracite,	2000 lbs.	5 00	“	6 00
CORDAGE, American,	lb.	11	“	12
COTTON,	do.	6	“	10
COTTON BAGGING, Amer. hemp,	yard,	13	“	14
Kentucky	do.	12	“	13
FEATHERS,	lb.	26	“	34
FLAX, American,	do.	7	“	8
FLOUR, Northern and Western,	bbl.	5 50	“	5 75
Fancy,	do.	6 00	“	6 25
Southern,	do.	5 25	“	5 50
Richmond City Mills,	do.	6 25	“	6 38
Rye,	do.	3 62	“	3 75
GRAIN—Wheat, Western,	bush.	1 10	“	1 20
Southern,	do.	1 00	“	1 10
Rye,	do.	73	“	75
Corn, Northern,	do.	67	“	68
Southern,	do.	65	“	66
Barley,	do.	67	“	69
Oats, Northern,	do.	42	“	43
Southern,	do.	35	“	38
GUANO,	100 lbs	2 25	“	3 00
HAY, in bales,	do.	70	“	80
HEMP, Russia, clean,	ton,	175 00	“	180 00
American, water-rotted,	do.	105 00	“	185 00
American, dew-rotted,	do.	75 00	“	125 00
HIDES, Dry Southern,	lb.	9	“	11
HOPS,	lb.	12	“	16
HORNS,	100.	1 00	“	7 00
LEAD.	lb.	4 38	“	4 75
Sheet and bar	do.	4½	“	5½
MEAL, Corn,	bbl	3 00	“	3 12
Corn,	hhd.	14 00	“	14 25
MOLASSES, New Orleans,	gal.	23	“	27
MUSTARD, American,	lb.	16	“	31
NAVAL STORES—Tar,	bbl.	1 87	“	2 00
Pitch,	do	1 25	“	1 38
Rosin	do.	80	“	90
Turpentine,	do.	2 75	“	3 25
Spirits Turpentine, Southern,	gal.	48	“	50
OIL, Linseed, American,	do.	67	“	68
Castor,	do.	57	“	68
Lard,	do.	70	“	75
OIL CAKE,	100 lbs.	1 00	“	—
PEAS, Field,	bush.	1 25	“	1 50
PLASTER OF PARIS,	ton,	2 50	“	2 62
Ground, in bbls.,	of 300 lbs.	1 12	“	1 25
PROVISIONS—Beef, Mess,	bbl.	7 00	“	9 00
Prime,	do.	4 50	“	5 50
Smoked,	lb.	6	“	9
Rounds, in pickle,	do.	4	“	6
Pork, Mess,	bbl.	12 00	“	14 00
Prime,	do.	9 00	“	11 00
Lard,	lb.	8	“	8½
Bacon sides, Smoked,	do.	3	“	4
In pickle,	do.	3	“	4
Hams, Smoked,	do.	6	“	10
Pickled,	do.	4	“	7
Shoulders, Smoked,	do.	5	“	6½
Pickled,	do.	4½	“	5
RICE,	100 lbs.	4 75	“	5 50
SALT,	sack,	1 30	“	1 35
Common,	bush.	20	“	35
SEEDS—Clover,	lb.	8	“	9½
Timothy,	7 bush.	14 50	“	21 00
Flax, rough,	do.	8 50	“	9 00
clean,	do.	10 50	“	10 75
SODA, Ash, cont'g 80 per cent. soda,	lb.	3	“	3
Sulphate Soda, ground,	do.	1	“	—
SUGAR, New Orleans,	do.	5	“	8
SUMAC, American,	ton,	35 00	“	37 50
TALLOW,	lb.	7	“	8
TOBACCO	do.	3	“	7
WHISKEY, American,	gal.	26	“	27
WOOL, Saxony,	lb.	35	“	50
Merino,	do.	30	“	35
Half-blood,	do.	25	“	30
Common,	do.	20	“	25

NEW YORK CATTLE MARKET—Oct. 27.

At Market, 1850 Beef Cattle, 40 Cows and Calves, and 4000 Sheep and Lambs.

PRICES.—Beef Cattle were in poor request, and at the close a good many left over. Fair to best retailing may be placed at $5.50 *a* $5.75; with some extra at $6.

COWS AND CALVES.—All sold at $18*a*$30.

SHEEP AND LAMBS.—Sales at 75 *a* 2.25 for the latter, and $1 *a* 3.50 for Sheep. Left over 600 head.

HAY—Is brisk at 91 cts. *a* $1 per cwt. chiefly the latter rate.

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REMARKS.—*Ashes* in moderate request. *Cotton*, brisk, and has recovered the late decline produced by the last news from England. Export since 1st September last, 59,558 bales; same time last year, 93,728; same time year before, 11,320. *Flour* is firm. Our readers will see that this great staple article has advanced about $1 per barrel within the past month, greatly to the benefit of the farmer. *Grain* of all kinds, brisk. *Corn*, quite scarce in market. *Hemp*, more inquiry. *Naval Stores*, an upward tendency. *Provision*, firm. *Seeds*, active. *Sugar*, quiet. *Tobacco*, the same. *Wool*, without change. Several lots have been sold for export.

Money remains plenty.

Stocks.—Quite buoyant.

The Weather.—We have had one cold turn this month, with sharp frosts; but we are now in the midst of a delightful Indian summer.

The Crops.—Pretty much everything at the north is now harvested. Potatoes have suffered much from the rot, and prove a short crop. Prices rule high. Corn, at the South, is very short. Cotton has sustained considerable injury from the rain and unusually early and severe frosts this month. Tobacco has been injured some by the frost; but upon the whole a fair crop. Rice has come in well. Sugar is very promising.

MAGNOLIAS FOR SALE.

Nurserymen and Gardeners, by making immediate application to A. B. ALLEN, at the New York Agricultural Warehouse, No. 187 Water street, can be furnished early next spring with trees of the Magnolia Macryphila and Grandiflora, at $50 per thousand. They will be carefully packed in boxes containing 500 or 1000 each, and will be forwarded from the South by the way of the Ohio river, as early as navigation opens, and delivered in the original packages, in good order, to purchasers.

SOLON ROBINSON, Agent for the Owner.

October, 1845.

PRINCE'S LINNÆAN BOTANIC GARDEN AND NURSERIES,

FLUSHING, NEAR NEW YORK.

The Great Original Establishment.

This nursery establishment is the largest in the Union, covering near 60 acres, and comprising the most extensive and select collection of Fruit and Ornamental Trees and Plants ever offered to the public—among which are more than 500 varieties of new and rare Fruits, and above 1,000 varieties of rare Flowering Shrubs and Roses, which are nowhere else to be found in America. The new descriptive Catalogues, with precise descriptions and directions for culture, and with reduced prices, will be sent to every post paid applicant, and orders will be executed with that accuracy and despatch which characterizes the whole establishment. Catalogues may be had of A. B Allen, 187 Water street; Saxton & Miles, 205 Broadway; and of Clark & Austin, Agents, 130 Fulton street, and orders left with them, or sent per mail, will meet prompt attention.

WM. R. PRINCE & CO.

N. B. The public are cautioned against a deceptive use of our name and title, which they will find exposed on our catalogues.

LIVE HEDGES.

50,000 Maclura, or Osage Orange, for sale by the subscribers,

D. LANDRETH & FULTON,
Nurserymen, Philadelphia.

PERUVIAN GUANO.

Just received from the Peruvian Guano Company, warranted pure and of best quality. Price in bags, for any quantity not *less* than ten tons, $50 per ton, of 2,240 lbs.

EDWIN BARTLETT.
42 South street.

Nov. 1st.

GRANT'S PATENT FAN-MILL RIGHTS FOR SALE.

The subscriber offers to sell the Patent-right of his Improved Fan Mill, to counties where the right is not already disposed of. The letters patent are dated July 10th, 1845. Letters addressed to L. T. Grant, at the junction P. O., Rensselaer Co., New York, post paid, where the Mills are manufactured, will receive immediate attention. They may be seen at the Agricultural Warehouse of A. B. Allen, 187 Water street, New York.

STALK AND STRAW CUTTERS.

Sinclair's Stalk and Straw Cutters,			price $25 to $35.
Hovey's	do.	do.	$10 to $35.
Stevens'	do.	do.	$10 to $20.
Other kinds for straw and hay,			$3 to $7.

s A. B. ALLEN, 187 Water St., N Y.

VALUABLE WORKS,

BY A. J. DOWNING, Esq.

1. *The Fruits and Fruit Trees of America;* or the Culture, Propagation, and Management, in the Garden and Orchard, of Fruit Trees generally; with descriptions of all the finest varieties of Fruit cultivated in this country: one thick vol. 12mo. Fifth edition; with many engravings, $1 50. Or a superior edition in large 8vo., to match the author's other works, $2 50.

"It is with feelings of more than ordinary gratification that we announce the appearance of this invaluable work. We are sure that none of our readers will be in the least disappointed with its contents, notwithstanding the high expectations which have been raised by the known abilities of its author. A deliberate examination of the work enables us to say, without hesitation, that it is by far the greatest acquisition placed within the reach of American cultivators of fruit which has ever appeared." —*The Cultivator.*

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2. *A Treatise on Landscape Gardening;* adapted to North America, with a view to the improvement of Country Residences. Comprising historical notices, and general principles of the art; directions for laying out grounds, and arranging plantations; description and cultivation of hardy trees; decorative accompaniments to the house and grounds; formation of pieces of artificial water, flower-gardens, etc.; with remarks on Rural Architecture. New edition, with large additions and improvements, and many new and beautiful illustrations. 1 large vol. 8vo. $3 50.

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Agriculture is the most healthful, the most useful, and the most noble employment of man.—Washington.

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A. B. Allen, Editor. Saxton & Miles, Publishers, 205 Broadway.

TO OUR SUBSCRIBERS.

Here we are, gentle reader, at the end of our fourth campaign, and we trust by this time that you like us hugely, and are prepared to furnish the *sinews of war*—which, by the way, means nothing more nor less than cash, in the shape of subscriptions—for the fifth regular sortie against the agricultural enemy, Colonel Ignorance and Captain Prejudice. They are doughty knights, truly, or in more common parlance, *hard customers;* but if we can only succeed in once conquering them, we shall then do well enough, and be able to sit down under the shade of our apple and peach orchards, and enjoy the fruits of our labors.

Agricultural products are now bringing capital prices—indeed, the farmer, to our great delight, has at length got the upper hand again; and while he is filling his stout leather purse with the proceeds of his cattle and crops, it will be a great pity if he does not set apart a small sum for an agricultural journal, to store his mind with new ideas, and enable him to improve his ancient craft. Now, is there anything better adapted to this purpose than the American Agriculturist? We opine not. It may not be very modest in us to say so; nevertheless, we cannot help insinuating in the most delicate manner imaginable, that our periodical is out and out the very best friend and instructor that the farmer, his wife, and all his little ones, can possibly obtain in their affairs; and it should ever be the first and last book, after the Bible, for them to read. Why, only look at it. We will say nothing of the pages and pages of rich solid practical matter, for the hardy husbandman, which runs through all the calendar months from January to December inclusive; but merely glance at the Ladies' and Boys' Departments. Then candidly tell us, gentle reader, did any one ever give you such an admirable treat as the first to the last of these papers, from Polly Dickson to Farmers' Wives. Our lady contributors, though few in number, are a host in talent, amiability, good sound sense, beauty, and discretion We expect a large addition to them, in the coming volume; and this we will frankly say, that any man may consider himself highly flattered by being associated in their company. Then, as to the boys, what sage advice for them, from the redoubtable Sambo to Mr. and Mrs. Thrift and Unthrift, and all the little Thrifts and Unthrifts! Why, boys, if some of you don't become Presidents of this great Republic one of these days, we shall be exceedingly disappointed. Our first President—the immortal Washington—the greatest and best man that ever lived, was a farmer; all the rest have been lawyers—no offence to the profession—and far, very far indeed, his inferiors. We hope when the boys who read this paper get grown, and can go to the polls, that *they will elect a* FARMER for their President. Let the plow rule is our motto.

The first number of Volume Fifth of the Agriculturist will be issued promptly on the 1st of January, 1846, with embellishments and matter such as will commend it more and more to the farming public. The work is well established—has a good and constantly increasing circulation—and we have the means now of pushing it more extensively than heretofore, in every quarter. We shall take care to do this the present year to the utmost, fully believing at the end of it, we can show as large a subscription list as any other paper of a similar kind in the United States. There is one superiority about our journal, and that is, it has nothing to do with *cliques* or *parties*, and is the organ of no particular Society. It stands FREE and INDEPENDENT—it is consecrated to the general good of the great agricultural class of the country—and thus do we ever intend to keep it

THE POTATO ROT.

We are asked to insert some articles on the present alarming disease of the potato. We respectfully decline doing any more than we have in the present and past volumes, till something more positive is known about the disease, be it murrain, cholera, or simple rot. The agricultural journals of the day, especially in Europe, are teeming with articles on this subject; we have read them nearly all, and have not got a single new idea, more than is already published in this periodical, at pages 350 and 354 of the last, and page 110 of the present volume. We are determined not to bore our readers with long prosy articles which teach them nothing new. The whole thing may be summed up in a few words, and these are—that the disease is probably a fungus. The best remedies are salt, lime, and charcoal. We recommend procuring new seedlings, and be very careful not to let them get mixed with old ones. Plant next spring on sod ground, without other manures than plaster, salt, lime, charcoal, or ashes. A good sod, with the addition of the other materials, will be sufficiently rich to raise a large crop; and depend upon it, if the seed be of a good variety, and it escape the rot, the crop will be sweet, mealy, and highly nutritious—the best for animals as well as man. Our readers will do us a great favor by giving us facts on this interesting subject, free from speculation.

A CHAPTER ON APPLES.

The great advantage of fruit raising to the farmer, has been often commended through our columns. It is not our intention to enlarge upon its general merits at present, but to confine what we have to say to the subject of apples alone.

The apple is, beyond all question, the king of fruits; as wheat and the potato are of grain and roots. In some one or more of its varieties, it keeps throughout the three hundred and sixty-five days of the year; and long after the earliest genitings and sweet-bough with their glossy sides and fragrant odor, are offered in the market, the piles of smooth greenings and pippins, and rough golden-coated russets, with all the firmness and substantial merits of veterans of '76, are tempting the eye and olfactories of every passer, by their plump and but just matured perfections. It is to this quality of enduringness, which is, with some exceptions, common to all seasons and all climes, that much of the merits of the apple are due. But much more it may justly claim, in its luscious flavor, and healthful influences; and its peculiar adaptation to so large and varied uses. Besides the thousand-and-one varieties of dishes of which it forms the sole, or principal, or a subordinate part, in the economy of the skilful housewife, it contributes greatly towards the interest of the farmer by the profits from its sale, and its use as food for his stock.

The profit from feeding the surplus of an extensive orchard of fine fruit to stock (for fine fruit is as much better for animals as it is for their owners), has become an item of careful estimate, since the nearly general abandonment of the wasteful sottish system of cider-making. It was the rule, we believe, that 8 to 12 bushels of apples would make one barrel of cider; and 8 to 12 barrels of cider, one barrel of cider brandy. The former was made to the halves, while, perhaps, 2 gallons of the latter might be returned as a full equivalent for a barrel of the former. Two gallons of miserable liquid poison, within less than a generation since, was the product of 8 to 12 bushels of apples! Let us see how the case stands by the touchstone of figures—Eight bushels of good apples (and it is cheaper raising good apples than poor), are worth in an average of seasons, 37½ cents per bushel, in the orchard, $3 for the whole; while the 2 gallons of brandy would be worth about the price of whiskey, say 50 cents—difference in favor of selling the apples, or using them for some appropriate purpose, six to one. Verily the present age has improved some in pocket, as well as morals.

The value of apples, however, for feeding to stock is not equal to that for selling, whenever a good market is within reach. The early droppings from the trees should be invariably fed to stock; as besides their general worthlessness for other purposes, from their immaturity, they frequently contain worms, which their consumption by stock effectually destroys. The most economical way of providing for this, is to allow swine to run at large in sufficient numbers to consume all the first droppings. These, with the offal of the dairy, and a good clover pasture, with a trifle of meal, thoroughly soured with the whey or slops, will put *a good breed* of hogs into fine condition, *if kept out of the road*, by the time peas, potatoes, and corn, are sufficiently matured to begin their fall feeding. If there should be any surplus of apples, beyond what may be more profitably disposed of, these may be fed to the fattening porkers, either raw or cooked, with certain advantage. The exact equivalent in grain or roots for pork or beef making, has not been ascertained with sufficient accuracy to be here stated, but that they stand high in fattening properties is beyond a doubt; while the quality of meat they produce is of the highest flavor.

Sheep may be substituted for swine in ranging through the orchard and picking up the diseased and immatured fruit. They will not hurt store sheep either in flesh or fleece, but they are more particularly profitable for such as are intended for mutton. A run in the orchard is an excellent preparation for heavier feed at a later period in the season, and richer or more highly flavored mutton cannot be produced than is afforded from such as have this food continued to them, till ready for the shambles.

Milch Cows thrive on them exceedingly, though they should never be allowed to run among the trees, from their injuring the limbs, and their tendency to choking in taking them from an elevated position. The milk from cows so fed is noted for its richness and delicious flavor. For working cattle and such as are intended for beef, they are nearly as valuable.

Horses are also exceedingly fond of apples, and few kinds of stock are more benefited by their use. They are a full substitute for grain, with hay, when not too hardly used, and it has been found from long experience and careful observation, that their health is better when so fed; their coat is smoother and more glossy; and that they are equally spirited.

The quality of apples has much to do with their value; though probably not more than that of roots and grain. Such kinds should be selected for feeding, if that be the object, which are, as a general rule, the most profitable for sale; as they will be found to combine the best flavor with the most substance. Sour apples have been proved from careful experiments, to be equally nutritious for stock as sweet, but it must be remembered, that they soon set the teeth on edge, and cannot be continuously fed in considerable quantities, with advantage to the thrift of animals. Boiling would remedy this objection, but it is more easily obviated by alternating sweet with sour; or if an orchard is to be set out or grafted, expressly in reference to this object, sweet apples may almost entirely predominate.

Poultry comes into the long list of consumers of the apple orchard; and no less good does it do them, than the other tenants of the farm. Of apples, of a soft, delicate, delicious pulp, we have had more than a peck per day consumed by a small flock of hens and chickens. Indeed, they would resort to the tree for their breakfast, from its droppings over-night, in preference to their grain dishes. Turkeys, ducks, and geese, are equally fond of them. We opine, that excellent canvass-back ducks may be made from the spice apple; and perhaps pheasant and grouse, from the barn-yard fowls when their flesh is similarly flavored.

Some prejudice has been created against the use of apples for stock, from the fact, that when a hungry cow happened to break into an orchard and filled herself to repletion, a fever ensued, and her milk dried up. The same rule would hold good against allowing a horse a ration of grain, because one had died from an unstinted feed of corn. The true course is, to commence feeding in small quantities, and gradually increase the allowance till put on full rations.

If cider is made, as it ought to be to some extent, for vinegar, but not for use as a beverage, in any case; the pomace may be advantageously used for cattle, or sheep. Mixed with hay, this is nutritious and wholesome, and constitutes a most economical food. When the apple is fed to the larger animals, hay and grass should always accompany it; and when fed to hogs, fresh clover or grain should be added. When thus judiciously managed, we doubt if the production of roots for stock feeding, will compare in economy with that of raising apples for a similar purpose. It is true they are sometimes cut off by late frosts, and are not vegetables and grain equally liable to injury and disappointment of the husbandman? In conclusion, we can offer no better advice to our readers, than to urge them to plant as extensive orchards as they can manage to advantage, of the choicest fruits they can select; and whether intended as an investment of their money, as food for their families, or domestic animals, or as an inheritance for their heirs, they can make no more appropriate bestowment of their time and wealth.

FARM OF MR. STAATS.

During a brief ramble which we had the pleasure of making in Duchess county last summer, among others, we called upon Henry Staats, Esq., late President of the Duchess Co. Agricultural Society. Mr. S. was born to no inheritance, but has succeeded through his own industry in rearing up a large estate of about 2,000 acres. Most of this property is in Red Hook, and a good portion of it is what is termed "the flats;" a fine, light, alluvial soil, free from stone, easily cultivated, and of greater or less fertility, stretching from the foot of the Highlands at Fishkill up the river some 60 miles or more. Geologists suppose that these flats were formed by the deposites of the great lake which unquestionably formerly covered the Hudson valley, till, by some mighty convulsion of nature, the rocky barriers were torn asunder, and it found an outlet through the Highlands to the sea.

Our stay was so brief with Mr. S. that we had not the opportunity which we could have wished to go over his farms and take full note of his operations. His rotation is to plow up the sod, manure, and plant corn. Oats succeed, then wheat with a top dressing, and with this the land is seeded down with clover and timothy. Plaster was formerly beneficially used here to considerable extent, but does not seem to answer a good purpose now. We are of opinion that if the farmers would give their lands a good dressing of ashes for a few years, plow in green crops occasionally, carefully apply all their stable manure, and muck where it is to be had, plaster would then again be found of considerable advantage.

A Sheep Farm.—In the town of Milan, adjoining Red Hook, Mr. Staats has a farm of 150 acres, so broken and rough that it cannot be cultivated to any advantage. This he has turned into a sheep farm, and we are not sure that it does not thus pay him a better profit on its cost than the easily tilled flats. He commences by turning on a flock of 100 to 150 head about the 10th of April. As the feed comes forward he increases the flock till June, and in October begins to lessen it, and removes the last from the 10th to 20th December. In this way the hundred and fifty acres support an average of 400 sheep during four months of the year. Suppose that these sheep were yearling wethers of a *good mutton breed*, the growth and improvement on them would be at least one dollar per head (one of our friends in Putnam county last year realized over two dollars per head), which would be $400. Estimating the value of the land at $25 per acre, this would be a fraction over ten per cent. interest on the same, while it must be recollected that under this system of feeding the land is increasing in fertility.

We mean to repeat at least a thousand times, or till what we say has some effect upon our countrymen, that a pound of lean, tender, juicy mutton, can be raised for *half* the cost of the same quantity of fat pork; that it is infinitely healthier food, especially in the summer season; is more agreeable to the palate when one gets accustomed to it; and that those who eat it become more muscular, and can do more work with greater ease to themselves than those who eat fat pork. We know nothing more delicate than smoked mutton hams of the Southdown breed of sheep—venison itself is not superior. Sheep can be kept in fine growing order where other domestic animals will scarcely exist, and thousands of acres in this State, like this farm of Mr. Staats', under an enlightened system of sheep husbandry, may be made to pay a good interest, where now they are nearly dead property in the hands of their present owners.

What the Farmer cannot afford to do without.—This is an agricultural journal. The moment he drops that, he may expect to fall behindhand, at least in the knowledge of the age and all good improvements in agriculture. Can the farmer afford to do this? No, he cannot.

THE STABLE.—No. 6.

Our cut this month illustrates the method of pulleying the horse's tail. This is sometimes done without either docking or pricking (nicking, as it is always called in England, and sometimes in America), but never with any good result. If the pulley is to have any determinate effect, it must follow *pricking* in almost every case; although it will sometimes, with rare good docks, give the required set to the tail when it follows docking alone. If the dock be naturally carried pretty well up and be rather limber than stiff, it may be advisable to try pulleying after docking without pricking; if the tail be made without it, a deal of trouble will be saved both to man and beast. But this can never be with crooked or low set tails and strong docks; pricking with them is indispensable, and a good tail will never be made without it. The reason is this: the two under cords are as strong as the two upper ones; the under depress, and the upper raise the tail. In pricking, the under ones are cut, and the tail is healed while elevated; the cords never unite; thus the upper cords are left to exercise their raising power unobstructed. With an unpricked tail, the tail is brought down by the relaxation of the muscles attached to the upper cords, and the contraction of the muscles attached to the lower cords, added to the weight of the tail. In a pricked tail, the tail is brought down by the relaxation of the muscles of the upper cords and the weight alone. The tail is elevated by the relaxation of the muscles of the under cords and the contraction of those of the upper. When an elevated tail is desired, the severing of the under cords near the body leaves the muscles of elevation to act unopposed, and a good tail is secured. In nature, however, the under cords are quite as strong as the upper, and consequently act as strongly to depress the tail as do the upper ones to elevate, and the weight of the tail is added. Of course, most horses carry low tails; and every horse with a steep rump, without an exception. All horses are made for use; and yet but few are made with good tails. All persons admire good tails; and those who most loudly exclaim against docking and pricking as barbarous, are not less fond of a gaily carried tail than those who see and know the use and propriety of making tails. Many horses need only pricking to give them good tails; others require to have the tail docked as well as pricked. *Well bred* horses carry good tails naturally much oftener than ill-bred ones; indeed, ill-bred ones rarely carry good ones, and well-bred ones generally do. The thorough-bred horse is almost never seen to carry a bad tail; and it is a remark, doubtless true, that the Arabian never carries a bad tail. Hence with high-bred horses used for the road, it is rare to see a tail artificially set up, nature having done it. Ill-bred horses most generally have steep rumps and carry low-set tails; and with part-bred ones, good and bad, high and low tails will be found, even with like breeding. So much for tails in that view.

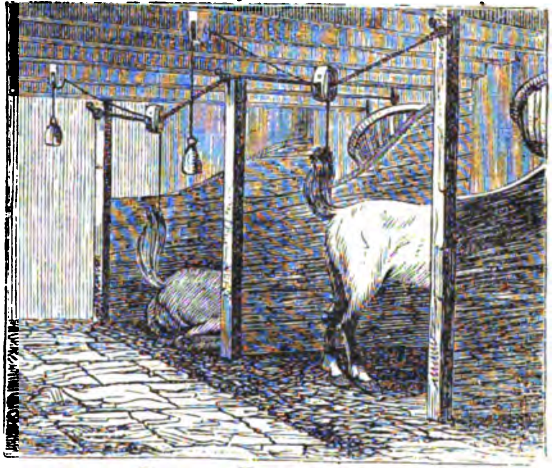
The reason why tails should be pricked is, that that they are too low, or the quarters are too low. In either case the horse will be improved in appearance. If the tail be too low, the horse will have a plain appearance. Prick and pulley the tail, and gaiety and style will take the place of vulgarity. If the quarters be too low, the elevation of the tail will elevate them in appearance, and the horse will seem to be higher as well as gayer. Many persons suppose that a horse's tail must always be docked as well as pricked to make it a good one. This is sometimes the case, but it is rarely so. Pricking alone will generally give an up-set and gay tail. If a horse carry his tail on either side, nothing but docking, in addition to pricking, will correct the defect. The reason for docking is other than making a good tail. Docking is ordinarily done for safety and convenience. But for these, tails should never be docked. On the other hand, to secure them, all tails, if necessary, should be docked. The tail is a protection against flies, and is useful as rendering the horse more quiet. Hence coach, stage, and omnibus horses should never have their tails docked, as they are driven from elevated seats and cannot make their tails an inconvenience. But whenever the horse is to be driven with the driver on a level with the horse, a long tail is a nuisance, and in most cases a dangerous one. His tail is flirted over the reins, and all power to control him is lost. From this cause fatal accidents often occur. They never happen with a docked tail; they cannot. Every horse to be driven in such a way that his tail may interfere with the reins, should be docked. Many persons insist that the horse when used for the saddle should be docked, as a long tail soils the dress. This is a poor reason for a cruel operation on the horse, and insufficient, if it be the only one. They who ride on horseback should be dressed to be soiled, as riding is a clothes-soiling amusement. Safety, or convenience as connected with safety, or the inability to give the horse his proper look and style, without docking, is the only reason that docking should ever be resorted to. When these demand, there should be no hesitation; but regard should be had to a proper and as little cruel an operation as possible. No weak, limber, or light-haired dock should ever be cut.

In our number for April, page 110, we gave a proper method for pricking. To that we now refer. There is another method in use, which we describe here, in order to warn against it. It is altogether in use in England, Ireland, and Scotland; in America it is sometimes adopted. It is barbarous in the extreme, and should be discountenanced. A gash is made on the under side of the tail, from the hair on one side to the hair on the other; and another gash two inches from the first, and the cords between the two gashes pulled out; two large wounds are made, much fever is induced, and not unfrequently so much hair lost that the tail is ruined. Where the horse is pricked as directed at page 110, there is no wound, for nothing but the cord is cut, and that is insensible, and cannot properly be wounded. A sore tail arises from wounds to the skin and the flesh which surround the cords. In the improved method the skin and flesh are not cut, save in a trifling manner.

There are three methods of docking. 1st, A sharp pointed knife is inserted at the joint and the tail unjointed and cut off at the proper length. 2d. A docking machine is used; this acts much as the knives of cutting boxes; the tail is placed on the under part or bed, and the knife, which turns on a joint at the end opposite the handle, is pressed down on the tail, cutting it off. 3d. A block is placed under the tail and some sharp cutting instrument, as an axe, or hatchet, or shaving-knife placed on the tail, and a smart blow struck upon it. The hair should be separated at the point of cutting; and care should be taken to cut the tail at a joint, for if one of the bones be cut through, the part left on will exfoliate (or rot), and drop off; and the tail cannot heal until exfoliation is done. If the tail be cut at the joint, it will heal in less time than the bone can exfoliate, and after the bone be exfoliated, the tail will be longer in healing than if cut at the joint. It is common to suppose that there is danger from bleeding after docking. There is however none, and so far as our experience goes, the tail is better for a copious bleeding, as it acts to diminish the tendency to inflammation. A hot iron is frequently used to cauterize the tail, and thus prevent the bleeding; this is barbarous and *worse* than useless, as it increases inflammation. It should never be done. Separate the tail at the joint, tie the hair with a twine string close up to the end of the stump, and let it bleed; it will in a couple of hours cease; the blood will clot and shield the tail from the action of the air (this is important in cold weather) and materially assist in the healing; at the end of the second day from cutting, untie the string, wash the tail with blood-warm soft water, and let it be to heal, occasionally washing it. If there be no hurry to make the tail, let it heal before pricking. When healed, adopt our method for pricking as recommended in the April number. Let the tail be for a day or two after the pricking: wash it in warm water, and if there be much soreness, apply any soothing wash which will remove the soreness; in a day or two, or more (according as the soreness is removed), put the tail in the pulleys and continue to wash daily. Our cut will represent the manner of pulleying. The plate is so plain that no description is necessary. A better method is, however, to have two pulleys, one on each side, but on the same principle. This will allow the horse to move from one side to the other, and yet carry the tail straight up. Sometimes the tail is carried on one side; if so it cannot be made straight without two pulleys; when the tail is carried awry, make the weight heavier on the opposite side, and cut the cord once more on the awry side than the other. With *care* it may be made straight; and a straight tail for the *want* of care may be and is often made crooked. Whenever a tail is to be pricked merely, and left its full length undocked, it must not be pulleyed from the end, but the cord which goes from the pulley to the hair must be fastened in the hair at about eight inches from the body; otherwise the tail may be made crooked; in a full length tail the end does not need elevating, but the centre of it does, to give it a handsome curve; this the pulleying from the centre does and avoids a crook which may arise from the weight of the tail if pulleyed from the end.

Properly done, the whole process of making a tail is but little cruel or troublesome to ordinary horses; and only so to horses highly sensitive and nervously excitable; but to such, even saddle or collar galls are horrible. If there be no hurry, dock the tail and let it heal; this will be in a fortnight to one month; and after the first three days the horse may do his work. When healed prick and pulley; keeping the horse after the first day or two in the pulleys day and night, unless he will not lie down when in them; but most horses will lie down. If these different operations be not *crowded* on to each other, there will be little difficulty or cruelty, and the tail will be certainly made a good one. Tails are often ruined by pressing the docking, the pricking, and pulleying on each other, with perhaps the cautery of hot iron added. This concentrates the irritating and inflammatory effect of all these operations, on to the tail at once; and a loss of hair, and even a ruined tail are not unfrequent consequences.

In conclusion of our long article (long from the importance of the subject), we have to say, that in view of the safety of all who drive horses (except from elevated seats) the tails should be docked. Humanity will make easy, by proper care, the process of docking, pricking, and pulleying, and will protect the docked horse, by a net, from flies. It is not necessary to dock tails to make them be carried well; that can be done by pricking and pulleying, and properly conducted these are not any more barbarous than all the ordinary breaking and training of horses. Docking is required for safety, and true humanity, seeing that human life should be protected, will feel that a million of tails should be docked rather than one life be lost. It is objected to docking, that it weakens the back. This is not so, at least never detected by experience; nor does it strengthen the back as claimed by its strenuous advocates. Sometimes spinal irritation and even lock-jaw are produced, but these and not the docking do the harm.



Pricking Horses.—Fig. 76.

The Present Winter.—We perceive that the believers in signs prophesy that the present winter will be a severe one; but if the rule which we laid down three years ago prove correct, namely, that a dry summer is the forerunner of a mild winter, and a wet summer of a severe one, those who are so short in fodder will have no reason to complain. The two past months have been very favorable for the growth of grass, and young stock in favorable places in this vicinity, are still getting a pretty good living from the pastures.

Composition for Grafting.—Take ¾ lb. of beeswax, ¼ lb. of tallow, and 4 lbs. rosin, melt the whole well together, and when it gets cold, work it up with the hand till it becomes of a proper consistency When used it will be necessary to warm it a little.

HIGH PRICES OF PRODUCE.

No one can be more rejoiced than we are at the benefit accruing to the farmers in consequence of the late advances in the prices of produce. But while we congratulate them on the ample remuneration they are now receiving for their labors, we sincerely hope that they will take good care of what money they receive—pay their debts if they owe any, and if not, instead of buying more land, cast about to see how they can improve what they already possess. More and more land is the unceasing cry of the American farmer; and when he gets it, nine chances out of ten that it is not more vexation than profit to him. The great curse of the farmer is his *large* possession of *land*, and his *little* possession of *capital*, thus rendering it utterly impossible for him to properly cultivate it. Recollect, land which is not giving abundant crops is just like an idle horse that has got to be daily fed and curried. It eats largely in the interest of the money paid, or covenanted to be paid for it, and requires more or less watching and care. Not to desire more acres, but how to better cultivate those already in possession, should be the motto of the farmer in this country, as it generally is in Europe.

Another thing, keep your sons steadily at their business, and above all, clear of merchandize and professions. They may become bankrupts in the first, and starve in the second; but if kept at work on the farm, will be pretty certain to be preserved in virtuous habits, earn a good and honest living, and have something over every year with which they can ultimately purchase or hire and stock a farm for themselves.

Keep your wives and daughters from buying gewgaws and gadding about the country, because their husband or father has got a little more for his wheat and corn, or pork and beef, this year than he did the last. If there is any money to be spared, let it be laid out in useful books, and take time to read them and improve the mind. How much more respectable and agreeable is the farmer's wife and daughters with intelligent minds and plain clothes, than the gaudy butterflies that too often flit about our cities, we need not say. The former inspire respect from all they meet, and are useful members of society: while for the latter we feel only pity, contempt, or disgust, for they are without benefit either to themselves or others.

GOOD MILKING COWS.

In consequence of the great scarcity of fodder, many an animal must go to the shambles that would otherwise have been wintered for a breeder. Now therefore is the time for the farmers to select their best milking cows and fat the rest. To be a good milker is the paramount merit of cows even while the dairy is considered of secondary consequence, and the milk goes principally to rearing the calf; its importance for this object alone is of great magnitude in giving a quick, full, and perfect development to the calf. In those sections of the South and West, where beef is the principal object of attention, great regard should be paid to the form which is destined to give the proper shape and rapid and early maturity, and a choice quality to the carcase when fitted for the shambles. Wherever the dairy is the leading object, the utmost attention should be paid to the quantity and quality of milk produced. We deem this a matter of so much importance, that we should unhesitatingly withhold a premium from a cow exhibited at any Agricultural Society of the Northern part of the Union, however meritorious the form, appearance, and blood, if the most satisfactory record of the quantity of milk produced between her annual calvings were not given, and its quality specifically determined for the purposes of making into butter; and if practicable, cheese also. The quantity of milk alone, without a knowledge of its capability for conversion into the latter products, we think a very unsatisfactory test of merit; as it has been frequently shown that a cow, producing less than half the quantity of another, has given a much larger yield of butter. Much also depends on the manner of feeding. A cow placed in a stable, or in a small, well shaded enclosure, taking little exercise, and fed on peculiarly succulent food, such as an abundance of fresh clover, roots, rich slops, &c., will yield a large increase of milk over one which is allowed to ramble in an extended range, and exposed to a summer's sun, or fed on a drier, yet nutritious food. The difference resulting from the opposite circumstances, if carried to extremes, would not be less than two to one in the same animal in quantity of milk; though it would be much less in butter; and probably if converted into cheese, the result might be even reversed. It is generally the case that wherever the dairy is an object of attention, oxen are much used for the yoke. It then becomes necessary to unite with her milking qualities such form in the cow as will insure a working animal of the right shape and limbs.

Charcoal.—Save all the charcoal dust you can lay your hands on, at a fair price, and apply it immediately to your winter grain and grass lands. It is warming in winter, and attracts moisture in summer, and as it decomposes, affords food for the plant. It can be applied broad-cast, at the rate of 100 bushels down to 20 per acre, with visible good effect.

Setting out Trees.—One cannot be too careful in setting out fruit trees. A friend of ours is now setting out an orchard of 15,000 trees. He began two years ago, by chucking his trees into the ground with roots all crooked up, like a frozen chicken's claws; but he soon found out his error, and has since spent double the time in digging round and straightening out the roots, and manuring them, that it would have taken to have set them out properly at first. He has just given an order for a quantity of trees to one of our best nurserymen, with positive instructions not to have a root marred; and he says he shall put a wheel-barrow load of well-amalgamated and well-rotted manure to each tree, mixed with the earth, with which he fills up the hole. One thousand trees well set out, and well cultivated after they are set out, will be worth more, and bear more fruit, than ten thousand carelessly set out and then left to themselves.

Apology.—An apology is due to our subscribers for the late appearance of the Agriculturist last month. It was owing entirely to the unparalleled drouth, the paper maker being unable to furnish his usual supply, in time, in consequence of want of water to run his mill. The publishers have provided for such a contingency in future.

Agriculture in Scotland.—No. 14.

In my letters of June and July, I gave you a sketch of a journey through some of the best cultivated counties of England, where for hundreds of years civilisation has reigned, and where the hand of man is visible wherever the eye can rest. Since that time, in the island of Islay, from which I have lately returned, I have seen a country some parts of which are almost as wild and unsubdued as our far Western settlements, where civilisation has comparatively but begun its work.

Islay is 25 miles in length, and 22 in width, and has long been the residence of a powerful branch of the clan Campbell. Mr. Campbell, of Islay, the chieftain, owns, with the exception of two small estates, the whole island, having about 16,000 people on his property. Between the Southwestern point of Islay, and Ireland, is but 21 miles, while from the tall cliffs of the West coast spreads out the broad Atlantic, with no land nearer than America. On the North are the islands of Mull and Colonsay, and on the East, Jura and the Mull of Cantire.

The present Mr. Campbell has labored diligently to improve the island, and has effected wonders. It was at his invitation that Prof. Johnston visited the island at this time, and gave two lectures. The first of these was upon the soil, and the second on the crops and manures. Both were remarkably well attended, and evidently awakened an interest which bids fair to be permanent. An interval of several days elapsed between the first and second lecture, and in the meantime we traversed the greater part of the island. The Professor, therefore, was able at the second to give them hints as to their most prominent defects.

The greater part of the island is slate, but there is a considerable extent of limestone, and patches of trap have thrust themselves to the surface in many places. The soil from the decomposition of the trap and limestone is very good, and that from the slate is quite improveable; under it, however, a hard pan, or band of iron ochre, is apt to form, and sometimes accumulates to a thickness of 6 or 8 inches. Into this no roots of cultivated crops will penetrate, and the soil is only available therefore above it. This is to be removed by breaking up with the subsoil plow, and putting in drains into which it may be washed by the rains, and carried away. All of the hollows, and a great portion of the high lands, have been, or are, covered with peat, forming in particular situations beds of 20 and 30 feet in thickness. Upon this peat are now some of the best farms in the island. The first step is of course to drain; this accomplished, there is little difficulty in raising excellent crops. The drains are frequently made from the peat itself, and are either wedge or shoulder drains, according to the shape.

Draining is quite indispensable in all the land of the island. This fact is fast becoming known to all the tenants, and the work is going on with a considerable degree of rapidity. Mr. Campbell defrays a large portion of the expense. Some of the larger tenants have now laid many miles. One of them has laid dry a loch of about 25 acres, and has the whole bottom of it thorough drained and under crop this year.

One great difficulty of the Islay people has been a want of good roads. The present Mr. Campbell has made strenuous exertions in this respect, and to a great extent has succeeded. The present roads are all very good, and several new ones are in progress, which will open up extensive districts. Another difficulty has been the want of markets; these are now brought quite near to them by steamers, of which four or five touch at different points during each week. A mill is also in progress of erection for manufacturing potato starch, flour, &c. This will be an outlet for that bulky crop, one of the great staples of the island.

Oats and potatoes are the two great crops, and of both we saw very fine fields. Wheat is now grown on some of the most improved farms, and some of it is remarkably good. Turnips are gradually gaining ground. They cannot be grown well on peaty soil unless it is thoroughly drained and pulverized. On one field of the home farm was the finest crop of Swedes I have seen this season. This was on a rather light limestone soil, manured with guano and farm-yard dung. In a little valley beyond was a beautiful meadow, with full ten feet of solid peat under the turf. All of the plantations about Islay House, which are very flourishing and extensive, are on what was twenty years ago an impassable bog.

The farm-yard manure is generally not well preserved. They frequently make good compost heaps; but even then the liquid is suffered to run away, and thus a most valuable portion is entirely lost. Prof. Johnston has, however, stimulated them on this subject, and I think there will now be tanks built, and many other improvements made. A considerable quantity of guano is used, and various saline manures. There are extensive shell sand beaches on various parts of the shores, and some of it is of excellent quality. It is used extensively, and is an inestimable advantage in some of the wild districts Farther inland Mr. Campbell burns the limestone, and gives it to those tenants who choose to come for it.

On the whole, the present condition of Islay seems to me very encouraging. It is true that large tracts of bog, heather, and waste land everywhere meet the eye, and that much of the farming is slovenly; but there is also much improvement, and many things indicative of a change for the better. We must not compare them with the Lothians; but remember that in their isolated situation, they have been as to cultivation in a state of perfect barbarism. Comparing the advantages of the two districts, it may be questioned if they have not advanced faster within the last ten years than the Lothians. They merit praise rather than censure. There is an onward movement among them, and the end of the next twenty years will, in all probability, see a wonderful change.

Edinburgh, Oct 1, 1845. John P. Norton.

A compact, economical, and perfectly safe Boiler.—I want some contrivance for heating water for stock, as suggested by your late correspondent "R." A large amount of heat is not required, but absolute safety is, for barn premises. I see a notice in an old number of the Maine Farmer, of a patent boiler, invented by Dimon B. Barnum, of Conn., who sold to Gen. Ladd, of Hallowell, Maine, a right to use it. Will some of your readers, or contemporary journals, give us the results of this, and any other better plan, that we may have the best before us Economy

OVERSEERS AND THEIR EMPLOYERS.

I THINK that the remarks of "S.," from South Carolina, page 319 of the October number, are a just and true statement of what we have to contend with, in relation to overseers, so far as eight tenths are concerned: their wish is in most cases to make crops and manage a plantation with little or no trouble to themselves; the result is, at last the employer bears the burden on his own shoulders. We need a different kind of men from what we now have; that is, a class who would enter into it as a business for life, or a profession; not as places for temporal employment or a home, but as an honorable profession, with a desire to learn both the theoretical and practical part of the duties. Such a class of men would add more to the agricultural interest of the South than all the new modes and theory now in operation. Improvements made elsewhere can never be introduced successfully among us, so long as our managers are prepared and determined to resist. Let them undertake it unwillingly, and nine in ten cases a failure is inevitable, the result, a condemnation, and prejudices against the whole course. A war in opinions exists between the employer and his overseer, which can never be settled until this change is wrought; it now is as a house divided against itself.

All overseers, or I may say, by far the largest number of them, look upon instructions as lessening their own knowledge, or underrating their judgments. From this cause, prejudice is a strong trait in their characters, and keeps us so far behind the improvements of the day. It is seldom or never that we can procure a man that will keep an eye to the whole interest of the plantation. He may make a heavy crop of cotton, an economical crop of corn, and stocks of hogs and cattle costing him no thought, they being valued in his judgment of little or no consequence. Impress upon him their value and importance, their reply is apt to be, "poor range—had no corn to spare—they all died last summer." Cotton they consider is the elevator of their reputations; for it is generally asked and known the quantity each man makes. His provisions and stocks are generally taken for granted that all is well. A large amount of bales sounds well, all for money; but it is never known how or where that money is to be applied by the owners. So much for overseers; now for their employers.

The first thing considered by one hearing this story, would naturally be, how do they hire overseers? Do they make no contracts? have no understanding as regards duty? hold no authority over their own? or do they merely hire a man, never watch his course or daily duties, and let him act as he may think proper from beginning to end? These questions will at once cause an employer to examine into contracts as well as his own interest, both as regards lost time, waste, and destruction; and if proper value is set upon all these things by the owner, his duty should be, first, by a strict understanding with his overseer, to have them properly attended to; if not, discontinue his services at once. Resolution is necessary with all men engaged in business, particularly the farmer; if he does not possess it, he may be considered but a man of accident, and with so many different duties to attend to, he must be resolute in giving to them their necessary attention. We can scarcely look for those requisite qualifications in overseers, until the planters first set the example of being acquainted with their own duties in all their bearings; and then we can instruct young men entering on such duties with confidence and assurance of success. When it arrives to this state, a new era will have been established, which will enlighten all concerned to their true interest and policy to be pursued; until then, the difficulties now complained of will generally exist. JNO. H. DENT.

Cowikee Creek, Ala., Oct. 20, 1845.

BUCKWHEAT.

Culture, Uses, and Manufacture.—Buckwheat is a native of Northern Asia, and seems to have been introduced into our country at its first settlement. It stands lowest among the grain crops of the farmer, and is seldom included in any regular rotation, but is cultivated on some piece of new land, or some field out of its regular order. Though this crop is very uncertain, and its cultivation by no means general, yet it is on the increase, as may be seen by Mr. Ellsworth's tables. The Report of 1844 puts the whole crop at 9,000,000 bushels, or about 15 per cent. over that of 1841. More than two-thirds of this is grown in the States of New York and Pennsylvania. Among the New England States, Connecticut takes the lead, while Ohio is most engaged in its cultivation in the valley of the West.

Among the poorer classes of farmers its cultivation is induced by the little comparative outlay of seed and labor, and the quickness of the returns; only about 65 or 70 days being required from seed time to harvest. It also suits those who never seem to shake off their winter habits and get fairly agoing till the seed time for the earlier crops is past. By some it has been considered a very exhausting crop; but this is by no means the generally received opinion. It is more easily affected by the weather than any other grain, and a dry season, a hot sun upon the blossoms, or an early frost, is sufficient to seal its ruin. Good crops of it are sometimes grown on very poor land, if the season is propitious.

It is generally sown about the first of July, and about a half bushel of seed to the acre is required. The better the ground, the less seed is wanted; the most successful cultivators considering it an object to have a rather thin stand, large straw, and well branched out, in order to have a good yield. Rye is sometimes sown with it, and a tolerable yield obtained when the season favors. Thus two crops are obtained with the same plowing. The ground for buckwheat is generally broken up just after corn-planting, and again crossed just before sowing. Upon a sod, one plowing is considered sufficient.

The harvesting commences in September, and usually takes two weeks from the time of cutting with cradles or scythes, till taken in and threshed out. When the day promises to be fine, while it is yet damp with the dew, it is rolled up in bunches on the swarth, and drawn in and threshed out in the afternoon. It needs careful handling, or much will be lost by shelling out. It is often threshed upon the ground in the field where it grew, by which much dirt and gravel is collected with it, and the quality of the flour depreciated thereby. Our good friend, Solon Robinson, of Indiana, assured us, some years ago, that there was no necessity for threshing it right out, but that it might be kept in stacks or mows like any other grain. This might be, if taken in right dry; but I can see little to be gained, and a certain loss in the shape of depredations by rats and mice. The straw, too, would be worth little or nothing for fodder, if taken in so dry.

The manufacture of this grain seems to be very capricious, and success is not always attained at will. Some of our little "thunder shower" mills have a reputation for grinding this grain which their four story neighbors upon the larger streams strive in vain to acquire. Why it is I know not; but the remark is often made, and surprise expressed that it should be so, when these latter generally have superior machinery, scouring apparatus, &c. About 175 lbs. of grain is required for 100 lbs. of flour, and different mills will produce very different qualities with the same quantity of grain. The essentials of good buckwheat flour are whiteness, absence of all grit, and a clean, soft handling.

The bread, or rather cakes, made of this grain, in some sections, is considered essential to a cold weather meal. In its season it is used almost exclusively by the poorer classes, both on the score of economy and convenience. Medical men have pronounced them unhealthy; and no wonder they should do so, if their judgment is made upon the heavy leaden things that so often come upon the table. As in other things, there is *sleight* in the baking. Our country women are far ahead of your city cooks in this matter, and that, too, without any of those chemical recipes paraded before the public of late years. Analyses made of this grain have shown it to be nutritious. It is said by Prof. Johnston to contain gluten, starch, and sugar, nearly equal to some varieties of wheat. But a hard-working German once in our employ, said it would do very well for supper, to sleep on, but not for breakfast or dinner, to sustain him at his labor. And probably he knew quite as much about it as the Scotch chemist. The analysis made by the German was a real practical one. Give me experience yet. Most kinds of stock are fond of this grain, when ground; and it is the best of "slop" for fresh cows, producing an extra flow of milk, and of superior quality.

The market for this article is not very free or extensive, and farmers do not appear to be very much acquainted with it. Probably three-fourths of the crop is consumed where it is raised, and retailed in the country towns and villages. Except in some sections, the city market is seldom resorted to. For New York, it is put up in kegs or bags of 100, 50, or 25 lbs. each. It is generally sold in lots to wholesale flour dealers, from whom the grocers obtain and retail it. It is sometimes seen in bags as small as 14 lbs. each. There is some little export of this flour from Philadelphia to Southern cities. Three years ago it was sold in Charleston, S. C., as high as $4 per 100 lbs., in quarter kegs. It is now bringing (Nov. 1st) about $2 per 100 lbs., in bags or barrels, in the city of New York, according to the newspapers. It is seldom noticed in the price current or market reports of the daily papers, and I never saw it mentioned but once in the tables of the Agriculturist. I hope, Mr. Editor, in future you will give it more attention. The matter is of considerable importance to some of us. A. R. D.

Hackettstown, Warren Co., N. J., Nov. 1, 1845.

CARE OF STOCK.

I CANNOT let the season pass without saying a few words upon the subject of caring for cattle at the approach of winter. I know men who style themselves farmers, settled upon large tracts of land, with large herds and flocks coursing over them in pursuit of food, without gathering sufficient to keep them from falling off in condition; losing more flesh in two or three weeks than can be gained in a whole winter after having been thus treated. All this grows out of the fact of an over-reaching spirit, in attempting to do too much in too short a period. While the grounds are being seeded the stock is increasing. The hay crop is short, and every lock which is fed to the cattle while the ground is bare is considered a total loss; and there would be no necessity for it if the grounds were seeded as they ought to be, in which case ten acres would produce more feed than one hundred managed the usual way. Land intended for pasture requires a great deal of seed; the farmers in England sometimes sow as high as 47 lbs. of the different grasses to the acre, where the soil is strong, and this, too, upon land well prepared—where every seed will catch if good. The consequence of this abundant seeding is, a thick sward at once; whereas many of the American farmers don't half prepare their land, and the reason is obvious, because the land is new, some of it just cleared of its timber, and it is impossible to place the seed in a position to take root. Hence the spears of grass are so scattering that a grasshopper cannot hop from one spear to another after having trimmed off the leaves without falling to the ground. And now, farmers, let me say to you in conclusion, when you seed your land, let it be well covered with sod, and well coated with grass, before you suffer a foot to tread upon it, and then you may let your cattle run out until the snow falls, and even after, especially horses and sheep, without loss of flesh to the animals.

AGRICULTURAL MATTERS IN NORTH CAROLINA.

SORRY am I to see and know the little interest felt and the abominable neglect of agriculture with most of the planters in this section of country. I do not know a single improving and scientific farmer in this or the adjoining counties. The old system of clearing and wearing out land continues, and not as much grain, &c., is produced from ten acres as might be obtained from one. I felt so anxious that your paper should be patronized and read in Hyde county, which contains more excellent land than any county in the State, and the people solely employed in agriculture, I loaned one of my numbers to an acquaintance, who promised me that he would get subscribers; but I have not yet got my paper, and I fear they have not yet come to the knowledge of the great benefits to be derived from your useful publication. I commenced with Ruffin's Register, which has cost me $40 or $50, and I have never regretted it. I succeeded in getting two or three subscribers to that work, and not a man continued it through its days of publication.

There is so little disposition among us to improve stock, it is impossible to sell a calf of the finest form or best blood for $20. I have one of the Devon, a beautiful mahogany red, and a roan of the Durham breed, and I could not get $15 for either of them. The farmers would sooner let their cows go with a scrub bull of the country, than have a calf or [illegible] a better breed.

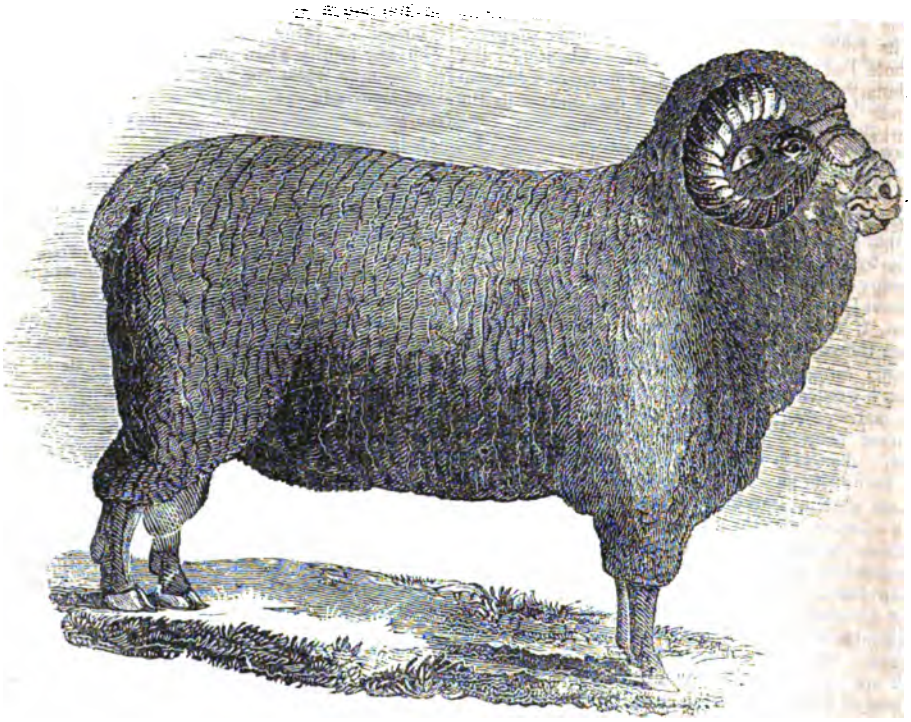
Bishop Ives has lately commenced an Agricultural School which is located in the north-western part of our State. I shall send my eldest son in a few weeks to that institution, and hope it will prove a lasting benefit to him in future life. J. B. M.

North Carolina, Sept., 1845.

MERINO SHEEP.

Vermont has long been celebrated for its [illegible]. strong, hardy, heavy fleeced Merino sheep, especially the Western part of it, bordering on Lake Champlain. The flocks are extensive there, and most of the farmers possess a greater or less number. They depend upon their clips of wool something as the South does upon cotton, rice, and sugar; or the West on tobacco, corn, and pork, for their cash incomes. Below we give

CHAMPION.—FIG. 76.



The property of Mr. L. G. Bingham, of Williston, Vt.

Never having seen the original, we presume that the artist has made this buck somewhat coarser than he really is. The outline, however, is good, and shows a strong constitutioned, vigorous animal; one that can shake his head at old Boreas in defiance, blow as hard as he list, or lie in a deep snow storm without suffering, only give him plenty of water to drink, a little salt, and a full stomach of hay, tempered with a small quantity of oats, peas, or beans. We hope to be able to visit Vermont one of these days, and take some lessons in sheep husbandry on the borders of the Green Mountains.

Champion is a yearling sheep, we believe. When 14 months 8 days old, he sheared 10 lbs. 8 oz. clean washed wool.

WATER LIME CEMENT FOR WATER PIPES.—Having had to repair a lead pipe that leaked, and finding the pipe so much corroded that solder would not adhere, I was obliged to resort to other means than soldering, when the following plan suggested itself. There being several places in the pipe, although within a short distance, that were so oxidated that we could not remove the earth without leaving holes in the pipe, we first carefully wrapt a piece of soft leather around it with twine, and masoned it in completely about two inches thick with water lime mortar, made by mixing one part cement with two parts sharp sand, wet to a convenient consistency for use. The plan succeeds well, although the fall is about forty feet in thirty rods. I would recommend cement pipe for water as every way preferable to metal for all ordinary places and purposes; for it is not only much the cheapest, but most durable, and any farmer can lay it after he once knows the principle.

J. W.

A PREVENTIVE AGAINST MOLES.—I have discovered what I consider a sure preventive against the depredations of the ground mole in orchards. Late in the fall I draw fresh muck from the swamp, and put about ten bushels around the trunk of each tree, heaping it about one foot up the tree, then tread or pack it hard and smooth, and it will lie bare nearly all winter, and the moles will not disturb the bark. If the muck has to be carted a great distance, a quantity as small as one bushel might answer. I have never applied anything as a manure for apple trees on warm land equal to muck. J. W.

Union Dale, Duchess Co.

AGRICULTURAL AFFAIRS IN MICHIGAN AND OHIO.—No. 2.

The Miami valley and country adjacent is, *par eminence*, the great pork growing country of the West Other sections furnish large amounts of pork, but none of so great an extent is so exclusively devoted to its production. Distilleries, too, abound along the whole line of the river, which, together with its tributary, afford large quantities of water power. These convert their grain into another form of marketable product.

Wheat and other grains are cultivated to considerable extent, but they do not seem to realize the superiority in productiveness over other lands which is characteristic of their yield in corn. Grass through the valley seems to produce only the average crop on good lands elsewhere. Fruit is generally abundant, but is almost entirely cut off this season. After frequent inquiries, and looking over the entire markets in Cincinnati, for two mornings, I saw but a handful of miserable looking peaches in a journey of 500 miles through Ohio. Grapes ripen well, and are usually abundant, but this year they follow, in part, the fate of other fruits. Sweet potatoes, when skilfully cultivated, yield good returns and of fine quality; but they are somewhat inferior to the delicious roots which are produced still farther south. Melons and the minor fruits abound, of fine flavor, and in great profusion.

The natural forest growth throughout the valley is equally beautiful and magnificent. Here is first seen, along this route, the graceful buckeye, which is found only in highly productive soils. Accompanying it is another native of stalworth dimensions, the burr oak, which ever indicates choice land. These sometimes reach the enormous size (for them) of six feet diameter. Black walnut, blue ash, pigeon oak, hackberry, elm, sycamore, cotton wood, hickory, &c., show a vigorous and luxuriant growth, and frequently attain enormous dimensions; while attached to them and clambering to their very tops, with its innumerable branches swinging to and fro, in graceful festoons, reminding one of the self-multiplying trunks of the eastern banian, the grape vine is sometimes seen nearly a foot in diameter. I was informed by an old resident, that there are but two varieties of native grapes. The best of these I found of small size, growing in delicate clusters and affording a pleasant taste. How different from the varied excellence of some of the native eastern vines, where I have seen a dozen varieties of fine natural grapes, blue, purple, red, and white, within the compass of half a mile, rustling in their unostentatious sweetness, on the banks of some secluded streamlet.

As was to have been expected, so fine a farming country was early occupied, and is now comparatively densely settled. But unlike many places, where the indolence and inefficiency of the inhabitants is fully equal to their natural advantages, this is settled by an industrious population, possessing generally much enterprise and intelligence, as is shown by the varied improvements which everywhere dot the country.

Of Cincinnati it would be out of place to speak in a farmer's journal beyond exhibiting it as an index of the farmers' country. It is emphatically built up and sustained by agriculture; for no other commerce or manufactures have lent to her their powerful aid, save what is demanded by the wants of the surrounding country. A city commenced in a wilderness, less than half a century since, already numbering 80,000, and surrounded with the comforts, luxuries, and refinement of the highest civilisation, and all accomplished by the self-impelling influences of individual freemen, is infinitely beyond the achievement of the great Czar Peter, within the same time, in establishing his northern capital. With the resources of an empire at command, he could erect his piles of stone and mortar, and that too by impoverishing other branches of his vast dominions; but he could not impart to his subjects the enlightened mind, the general intelligence, the high moral principle, the determined will, the far-seeing, effective energy and enterprise which stamp the American freeman, and crown his efforts with such signal success. A railroad from Cincinnati, leading up the north bank of the Ohio some miles, through Fulton, the iron and steamboat manufacturing suburbs of the city, soon strikes the valley of the little Miami, which it follows till it reaches Xenia, a distance by the road of 64 miles This is a part of the line of the road which is to be completed next year to Sandusky, and which is eventually destined to be one of the principal avenues of travel to the great West.

The bottoms of the little Miami, though much more limited, are similar in quality and cultivation to those of their greater namesake. An occasional field of hemp, and many of tobacco, meet the eye; and the cultivation of the latter is somewhat extending of late years. The completion of the railroad, thereby connecting by a cheap and rapid communication, the genial climate of the South, with the great inland seas of the North, will open new and profitable markets for their agriculture. Early fruits and vegetables, and such as cannot be reared in perfection in the East, such as apricots, peaches, grapes, sweet potatoes, &c., &c., will find a constantly growing and inexhaustible demand, and return vastly greater profits to the producer, than is realized from the ordinary staples now principally cultivated; and we can offer no better suggestion to the farmers than to prepare themselves immediately to supply this demand.

Xenia, a flourishing village, is situated in a country not peculiarly eminent for its fertility immediately in its vicinity, yet sufficiently so to make a fair return to the agriculturist. Corn is raised to some extent, but wheat and grass are perhaps more largely cultivated. Much of the soil would seem to be well adapted to rye. A fine turnpike of 44 miles brings the traveller on to the national road 10 miles from Columbus. The latter part of this route passes through what is called "the barrens," which afford a soil of moderate fertility, yielding an occasional good crop of corn; yet better adapted to wheat and grazing. The principal native growth of wood is oak.

Two or three miles west of Columbus, the road enters the valley of the Sciota. This favored valley stretches out for miles to the east and west, on either side of the river, and 100 miles north and south; and it is claimed by its occupants, to equal in fertility the best parts of Kentucky, and the Miami. Here as there, corn is the great staple, though much of it is in grass, both of which are produced in large quantities. Wheat is frequently raised in the valley, but is quite liable to rust and lodging. The use of lime and charcoal would probably remove these evils in part; but the abundance and cheapness of land, the remoteness from market, and the frequently low price of products, has thus far had, and will probably for years to come, continue to have a tendency to check such an accurate and well sustained system of agricultural experiments, as are indispensable to the highest success of this pursuit.

As on the Miami, much of the corn raised in this valley is distilled and large quantities are converted into pork; but a greater proportion is probably fed to cattle. Large numbers of them are annually brought from Kentucky and elsewhere, and "finished off," into stall-fed beef, a part of which is barrelled here for foreign exportation, and a part driven to the eastern markets for sale and consumption there. Horses and mules are reared for other markets in considerable numbers, and the latter especially to a great profit. It is somewhat singular, that an animal whose use, and consequently the demand for which, has always been limited to an inconsiderable part of the country, which is more hardy and more easily reared than any other, ever has and still continues to afford a larger profit to the breeders than any other stock. The cultivation of madder has within a few years been introduced into Ohio, and as was to have been expected when intelligently pursued, it has been attended with great success and large profits. The castor bean is largely produced; and flax is extensively raised, but principally for its seed. The silk culture is slowly but surely growing into favor at the West, and is there, as well as in every part of the Union where systematically followed up, destined to yield large returns for the labor and capital bestowed upon it. Columbus is emphatically a "city of the plain." From the cupola of the state house, the eye stretches out in every direction, over an interminable level of uniformly fertile, and where cleared, of well cultivated land. Considerable portions of it are still covered by the original forest; yet numerous and large fields in this and the southwestern part of Ohio were found in a state of cultivation by the aborigines, which has undoubtedly been subjected to more or less tillage for ages. The proof of the early and extensive occupancy of this country, is indisputably afforded by the numerous and sometimes immense tumuli and mounds of various descriptions, and undoubtedly designed for various purposes, which everywhere pervade it. The capital is eligibly situated on the second bottom or plateau above the river, is handsomely laid out in large regular squares, which are well covered with substantial, and in many cases, elegant structures; while in the outskirts are seen the stately architecture and massive proportions of the lunatic asylum and penitentiary; and in a diminished degree, those for the deaf and dumb, and blind. It is a wealthy and growing city, though young and numbering comparatively few inhabitants; but like every other incipient city, backed up by such certain and ample resources as surround her, and which are yet but partially developed, she is destined to a large growth and prosperity hereafter.

My route from here to Cleveland lay principally through the counties of Knox, Wayne, Medina, and Cuyahoga, good counties all, but parts of them exceedingly broken and rough, and though affording but little of the best corn land, yet almost everywhere yielding good wheat. The fields on the Reserve, which in the earlier part of the season were exceedingly parched by drought, were looking somewhat better, and much of the corn was full eared and thrifty, but so backward that an early frost would nip most of it before sufficiently ripe to withstand its effects. So severe and long continued a drought has probably never before been experienced, or at least exceeded, in this or any other State. Although frost and drought have spread over one third of this large commonwealth, cutting off and drying up for an entire season so large a proportion of its whole agricultural resources, still the products of this great and fertile State are so abundant and overwhelming, that after supplying to repletion her population of 2,000,000, she will export millions for consumption abroad during the present year.

A great destiny awaits Ohio. She has accomplished much already. So vast an accumulation of population and wealth, and such an incalculable amount of labor, in clearing away the forests, and covering them everywhere with the necessary and graceful accompaniments of civilisation, and all accomplished in that brief space of time, in the history of a nation, comprehended within the limits of only half a century, are calculated to excite the wonder and admiration of even an American, accustomed as he is to similar, though somewhat less striking examples. Achievements thus conspicuous need only to be followed up, to place her high on the scroll of fame, the admiration not only of her own country, but of the civilized world.

More minuteness and accuracy of details must be excused from me, hurrying through the country on business totally foreign from agricultural matters, and obliged to decline every invitation to examine the numerous and well cultivated farms and fine stocks of cattle, which are daily increasing in number and interest throughout the Western States.

Buffalo, Sept. 20, 1845. R. L. ALLEN.

LEACHED AND UNLEACHED ASHES.

I HAVE perused your paper with profit and satisfaction, and find that it contains much useful information. I am a practical farmer, and wish to improve my mind and soil. The former can be done by making close observations on practice, at the same time storing the mind with useful knowledge, which may be gleaned from many works and publications which are abroad at the present day; and the latter by pursuing a judicious course of husbandry. Will you please to answer through your paper the following queries? Can unleached ashes be profitably applied to land as a manure when they can be obtained for $12.50 per hundred bushels? (*a*) What effect would they have on land, the soil of which is a yellow loam, with a small proportion of gravel, and has been pastured with sheep for many years, and now produces but little feed? (*b*) That part of the field which has been plowed this fall we intend to sow with oats and grass-seed next spring. The remainder we shall plow in the spring, and plant it with corn. I shall apply 100 bushels of ashes, by way of experiment, to the oats. How many bushels ought to be applied to the acre? At what time ought they to be applied? (c) Are unleached ashes worth more per bushel for manure than leached ones? [No.] If so, what is the difference in their value? (*d*) How many parts of well rotted stable manure are equal to one part of unleached ashes, the ashes to be made from hard wood? [Don't know.] An answer to one or all of the above queries would be gratefully received by

Salem, N. Y. A SUBSCRIBER.

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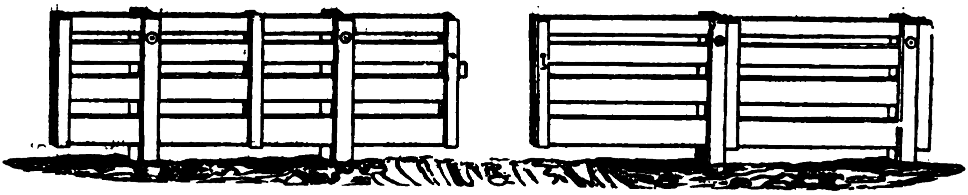
(*a*) We have no doubt they can be profitably applied at this cost in the location of our correspondent. Where produce is cheap and the land fertile, it would not be profitable to pay near as much per bushel. The profit or loss of such applications, however, can only be told after making a series of experiments with ashes by the person purchasing them.

(*b*) A good effect doubtless, though we think that ground bones would answer better, for we are of opinion that the soil is somewhat exhausted of its phosphates, and the bones restore these to it more abundantly than the ashes. But we would advise an experiment, side by side, with bones and ashes, premising to our correspondent that he must not judge too hastily, because the bones do not act as quick as the ashes. Their good effect will be more apparent on pasture land the second year than the first; whereas with ashes it is the reverse.

(*c*) Apply 20 to 100 bushels per acre. After the grain is sowed and harrowed in, sow the ashes broadcast on the land.

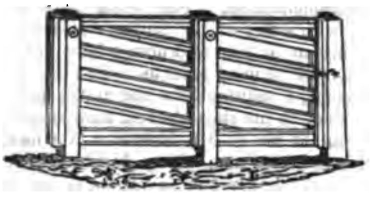
(*d*) We recollect reading some experiments which were made to test the difference in value between leached and unleached ashes, but cannot tell now where to turn to them. If potash is wanted in the land, of course the unleached ashes would be much the most valuable. Will some of our friends answer "A Subscriber" on this point, especially if they themselves have made experiments between leached and unleached ashes?

BAKER'S PATENT FARM GATE.



SELF-BALANCING GATE.—FIG. 78.

THE above is a cut of a self-balancing farm gate invented by Mr. Anson Baker, of Western, N. Y., and is represented in the sketch as partly open. It has been in use some time in Western and the neighboring towns, and is much liked. It runs on rollers inserted in the posts, under the upper slat. It is opened by pushing it to the right and left. It may be made of wood or iron, and costs little more than a pannel of fence. When shut it has the appearance of one of the pannels. It is particularly convenient in winter, those using it not being obliged to clear away the snow in order to open and shut it, nor can it be swayed to and fro by the winds.



SELF SHUTTING GATE.—FIG. 79.

This is an admirable gate where small ones are wanted; it also runs on rollers. The slats being placed obliquely, the moment the hand lets go of the gate when opened, it instantly slides back and shuts.

Models of the above gates can be seen at our office, and we are authorized by Mr. Baker to sell the patent right for the same, from $3 to $5 per farm, according to its size. Any person slightly acquainted with the use of tools may make these gates.

CANE-BRAKE LANDS.

To open a plantation in the cane, and make a good crop of cotton and a full crop of corn, the first year, the hands should reach by the 15th of December, the proper quantity of cane be cut by the 15th of February, and a good burn be had by the first of April. The earlier the cane is cut, the sooner and better it can be burnt; and as ten to twelve acres of cotton to the hand will be ample, the cane cut for cotton, if season and circumstances favor, can be burnt the first suitable spell of warm dry weather that occurs in March, and that intended for corn can be burnt later. To make certain of a good burn, the leaves on the ground and the ground should be examined, as both should be dry as well as the cane; and fire should be set to the windward side 11½ to 4 o'clock, at distances of 10 to 15 feet, as quickly as possible. In the course of a few days, say two or three, the planting should commence. As the same method of planting serves both for cotton and corn, I will state the one I have pursued, after observing that the rapid, neat, judicious, and successful cultivation of the first and second years with the hoe, can be assured only by having the rows straight, the hills equi-distant, and every foot of the ground, jam up to trees and logs, planted and cultivated.

After squaring the field with stakes, as done for the plow, let one hand out of every eight or ten, a smart, active man, go ahead of the hands that open, and lay off with his weeding hoe guide lines for the latter. By keeping his eye steadily on the stakes, they keep him in line, and but little practice will render him perfect in laying off. The marks are made directly in front, three to four feet apart, which, though faintly made, will be visible while fresh, say for a day or two, and will enable those who open to dig the holes rapidly. Moving sideways along the marked lines, they will space the hills with great accuracy, and it will aid them considerably, and the work be better done, were the overseer to keep his measure in his hand, and rule them up to extreme exactness. Of cotton, 15 to 20 seed to the hill will be sufficient, which, when large enough, should be thinned after rains by hand instead of hoe, that the stalk left standing may certainly be uninjured. Planters differ with respect to the distance at which cotton should be planted in the hill and row. On alluvial, 3 feet for the row, and 24 to 30 inches for the drill, are perhaps average and good distances. Right cultivation is a material matter. The drill and 12 to 18 inches on each side should be cultivated as well as possible the first and second workings. The centre between the rows will admit of some neglect if the crop be heavy; but this must be worked as the expanding cotton requires. Very little dirt should be thrown around the cotton at any time, and no hill made to it, lest the growth be made too luxuriant. As observed in my notes, I expect with confidence at least 1,000 lbs. of cotton to the acre the first year, and I may add, that not less than 40 to 50 bushels of corn to the acre should be made. Although but little cane will spring up the second year, the labor of cultivation will be somewhat greater than in the first, as the poke weeds, &c., will be much more abundant. The third year the plow would be required (some use it the second), when the work will be light and the production great, which each succeeding, for many years, will become greater.

It may not be amiss to observe, that the men while engaged in marking the guide lines should strike without taking their eyes off the stakes, and that one of the many advantages, and a great one, that attends regular spacing of the hills is, that a well trained and judicious scraper of cotton soon ascertains the most convenient, rapid, and best method or rule of working such, the loss of which advantage he sensibly feels when the work is not properly prepared for him.

These notes explain and make those on cane-cutting more valuable, and of course should uniformly accompany them. S. S. W. Vick.

Vicksburg, Miss., 1845.

STUDY OF NATURE.

The study of nature can never be sufficiently attended to; every part of it demands our most serious attention, and every part of it repays us for the labor we bestow. Wherever we turn our eyes, a field of contemplation opens to our view. The animal, vegetable, and mineral worlds teem with matter for the exercise of our minds. Nor can agriculture be ever brought to perfection, till a just theory be drawn out from the walks of Nature herself. She is so bountiful to us that her treasure is never exhausted; and the more discoveries we make, the more we find entirely unknown to us. Nature developes in the spontaneous growth of vegetation, important facts, which, if attended to carefully, will be found highly instructive.

The pursuit of natural history furnishes an innocent and amusing exercise to the faculties of the human mind. With mere amusement we are not to rest satisfied; the claims of society forbid it; our exertions should be *active* and *benevolent*; and the philosopher in his study should remember that he is still a citizen of the world.

If we look into the annals of history we may remark, that many nations have observed certain periods for sowing, planting, and reaping, confirmed by the appearance of leaves on particular trees, or the migrations of birds, which almost invariably corresponds with the leafing of these trees. The Indian rule is never to plant corn until the apple trees are in bloom.

By taking nature as our guide, the farmer may adjust his times of sowing, planting, and reaping with more certainty. He may frequently insure a good crop, by keeping his seed in the granary till nature has pointed out a proper time for sowing it.

Would it not be well to revive that old and useful custom of observing the times of budding, leafing, and flowering of plants and trees, because these appearances seem to have been designed by Providence as our surest guides in conducting rural matters. They ascertain the exact times of sowing, planting, and reaping. They are the best thermometers (if I may be allowed the expression) which we can use, after they have been regulated and confirmed by experience.

The regular return of seasons, and the invariable order that vegetables observe in budding, leafing, and flowering, bespeak Almighty wisdom and Almighty power. A mind harmonized to such Divine contemplations, sees at all times, and feels with warmth, the goodness of the Creator to the created. He considers the work of nature as the silent but expressive language of the Deity; and while he sees only to admire, is wrapt in gratitude and devotion.

Albany, Nov., 1845. C. N. Bement.

A VISIT TO A YANKEE PLOW FACTORY.

While in Boston, the other day, I called in to take a look at the extensive sales-rooms of Messrs Ruggles, Nourse, and Mason, which are kept in the great hall of the Boston Market House, where I found the greatest assortment I ever saw of plows, harrows, hoes, shovels, spades, forks, churns, cheese-presses, straw-cutters, and an immense variety of agricultural implements and seeds, of a quality worthy of all commendation. Not being personally acquainted with either of the partners of this concern, and feeling at a loss to know where to look over such a host of farming tools as I had never before seen together, I inquired for one of the proprietors, when a man in his shirt-sleeves, hard at work, was pointed out to me as Mr. Nourse. Not having the fear of meeting a man above his business, I approached and made known my name to him, and instantly received the welcome of an old acquaintance, though known before only on paper.

After spending the day examining this museum of specimens of what mechanical skill has accomplished for the benefit of farmers, I accepted an invitation from Mr. Nourse to go out next day to Worcester, 44 miles by railroad, to see where and *how plows are made by machinery*. At Worcester I found the other two partners personally superintending their extensive establishment. They are all practical mechanics, as well as farmers, and Messrs. Ruggles and Nourse were born, if not plow-makers, of plow-making fathers, and early bred to the business. But in those days the plow was a very different implement from what it now is.

I found them occupying part of an immense four story building, using both water and steam power, and leasing out the surplus over their own wants to other mechanics, so that the whole building is full of active machinery. They have invented, patented, and have in operation, machinery for making the wood work of plows so perfect and complete, that the timber is taken as it comes from the saw-mill in plank of suitable thickness; for instance, the beam of any particular numbered plow is first cut upon one machine into suitable length, upon another it is sawed the right crook, then it is planed upon a machine that planes a crooked stick as well as a straight one, and almost as rapid as thought. Upon another the double tenon is finished as it were by one stroke of their saws, on another the corners are taken off, and again, every hole is bored, as well as every part of the work done so exact to a gauge, that it requires scarcely any after fitting by hand, and will suit any casting of the size for which it is intended.

The handles and rounds also pass through appropriate machines, and when they finally come to the hands of the workman who fits them to the irons, he has a set of pattern-irons upon a form where every piece being exactly fitted by fixed gauges is passed over to another to be attached to the irons to which they respectively belong—consequently every plow of the same number, no matter when made, *must be exactly like every other one.*

Such is the perfection of the machinery, that the fourteen hands employed in this branch, can wood from 50 to 80 plows per day, working eleven hours. The castings are made in a separate building, and about twenty hands are employed in this branch. From the foundry the castings are brought to the grinding room and cleansed of sand by vitriol, and then polished upon grindstones. This is a tedious though important process, as by it the whole of the exposed parts are made so smooth that the dirt is not likely to adhere, and the plow runs vastly easier.

The irons are all made of the best quality of soft tough iron, while the edge of the wing part and base of the land-side is made so hard by being chilled in the mould, that the hardest steel will not cut it, and the point never wears blunt.

In the blacksmiths' shop I found eleven men at work, some by charcoal and others by Lehigh coal fires, blown by one machine which furnishes wind to each forge through pipes, and is let on or shut off by stop-cocks.

In the paint shop seven men are employed painting and varnishing, the latter being preferred by some because they can see the quality of the wood—though I must recommend paint as far preferable: and where all the work is done by upright men who put their names upon every article, buyers need have no fear that bad timber is covered up with paint and putty.

Never have I spent a day more to my satisfaction, than in looking over this establishment for the manufacture of that first and most important of all implements—the plow—and where I found near forty different kinds and sizes adapted to all kinds of land and work, including five sizes of side hill plows, some of which are peculiarly adapted to that remarkably light soil found upon the steep side hills of Mississippi. Messrs. Ruggles, Nourse, and Mason, are also making some excellent cast-iron road scrapers (ox-shovels), and several sizes and kinds of cultivators and harrows, among which I rank the Geddes Harrows as the very best.

They also make or have made almost every other kind of agricultural implement; though as you will readily perceive, the principal energies of their active minds are devoted to manufacturing the most perfect set of plows that human ingenuity is capable of producing. There are two other plow establishments in the vicinity which in consequence of my feeble health I was unable to visit.

I am rejoiced to say, that Messrs. Ruggles, Nourse, and Mason, are so constantly crowded with orders for their plows, that they cannot accumulate a stock on hand, which certainly shows that the spirit of improvement is actively at work among my brother farmers, who I hope will be interested in this visit to a Yankee plow factory by their old friend,

New York, Oct. 23, 1845. SOLON ROBINSON.

MANAGEMENT OF COLTS.

Weaning.—Let the colt run with his dam until taken into winter quarters in the stable, then tie mare and colt in the same stall, but in such a manner that the colt cannot suck except when he is loosed for that purpose, once a day, until the mare is dried of her milk. Feed him alternately with oats, shorts, or roots, once or twice a day, and all the good hay he will eat. Give him plenty of exercise twice a day, in leading to water; curry or card him clean daily, and let him be well bedded with straw.

Bitting.—Take your colt when he is coming four years old, into a square box stable, put the bitting apparatus upon him twice a day, for a half hour or an hour (not longer, as it is painful to the muscles), gradually drawing in the nose each time, until it is to your liking. When he has become accustomed to it, turn him into an enclosure to stand, walk or run, as suits his inclination; then go to him after a half hour or so, take off the bitting bridle, and give him an apple, scratch his nose, and in a kind voice tell him to come along, and he will follow you into the stable. Have a trough instead of rack for his feed, and so constructed as to oblige him to raise his head a little, and curb in his nose, in order to get his food, having one apartment for hay, and another for oats and roots. Have a high window cut out at one side of the stall, where he can stand with head up and amuse himself in looking at the other horses and colts in the yard. This will greatly relieve the irksomeness of his confinement, and make him more gentle. If of a bad disposition, however, he may require close confinement in rather a dark stable. S.

REMEDY FOR THE BOTS.—I have used the following receipt for the bots for a number of years, and have never known it to fail in a single instance, when given in time. I have known horses in the most excruciating agony immediately relieved after taking the drench, and commence eating. Previous to giving the drench, rub the flanks of the horse with spirits of turpentine, then take of linseed oil half a pint, molasses half a pint, sweet milk one pint, mix well together and pour down the horse's throat from a strong junk bottle. S. J. JONES.

Shoal Ford, Ala., Oct. 27, 1845.

A GOOD METHOD TO SUSTAIN COUNTY AGRICULTURAL SOCIETIES.

SINCE reading the editorial remarks in the October number of the Agriculturist, in regard to the method adopted in a small district in Canada, to support their agricultural organization, by giving a copy of an agricultural paper to each subscriber, the more I have thought upon it, the more I have been pleased with the project. There is real difficulty in sustaining small organizations of this nature. After a few years, members feel as if their money was thrown away which was given to this object. Many gave in the hope of receiving some return, in the way of premiums. They have been sadly disappointed, and not unfrequently bitterly prejudiced. The old story is bandied about for the thousandth time, that all the premiums go to judges, lawyers, doctors, and the magnates of the land, and a poor or private citizen can get nothing. The popular prejudice runs high, and the cause dies in the hands of those whom it was intended to benefit.

Now, adopt the course which you suggest, Mr. Editor, and this obstacle is overleaped at once. Give every subscriber to a county organization a copy of your paper for his subscription of a dollar to its funds; and, whether he wins or not at the fair, he will feel that he has a "*quid pro quo*"—a value received for his money. He will be made the wiser and the better by his reading. His attachment to the Society will increase. His advance in improvement will be secured. He will lose the selfish principle in which he acted before. *I like the plan.*

Suppose, for example, that we, in this county of Chittenden, State of Vermont, could adopt the plan for our Society, and could get 1,000 subscribers. We might reasonably anticipate that you would give us 1,000 copies of your paper for $500, and then we should have $500 in the treasury of the Society. One thousand subscribers to an agricultural paper in this single county, and by this means, $500 in the Treasury of the Society! Only think of it. What an influence would be exerted upon the agricultural interests of this county in a single year, by one thousand volumes of your invaluable paper! What a stimulus would be given to every department of husbandry—what innocent, but high-souled competition, would be put in motion in a thousand farms! What valuable researches would be made, and what experiments would be tried, which might bring out results of untold value to the country and the world! And suppose this example could be followed by a thousand other county organizations in the land—and we should have an agricultural literature adapted to all, and scattered monthly over all—who can tell the grand and high results? Think of *one hundred thousand reading—thinking* farmers!

Now I am right earnest about this matter, and I mean to do as well as write, to bring this noble end about. We, in Chittenden County, who have become acquainted with the plan, like it; and we shall use our influence to have the plan adopted at our annual meeting in January. We believe it will meet with favor everywhere, among our members. *Why not, everywhere?*

Shall it be adopted elsewhere? What say you in the sister counties in Vermont? What say you all over the Empire-State? What say you, Down Easters, away in the State of Maine? What say you, on the Granite Hills, in the Bay-State, and in the Land of Steady Habits? What say you, Little Rhody? What say you, Jersey Blues? Shall the plan be adopted? What say you, Pennsylvanians and Delawares? And in the Old Dominion? What say you, gallant Old Kaintuck? What say you, away out west, Buckeyes, Hoosiers, Corn Crackers, Suckers, and Wolverines? What say you, away down South, on both sides of the Mississippi? and what say you, away on the outskirts of creation? Shall the plan be adopted? Only think of its grand results!

We are now in December, and a new year is almost upon us. What is done in this matter must be done soon. Let 1846 witness to our doings in this respect, and many a year shall roll away, long after the movers in this measure shall be called hence, before the good effects of it shall be forgotten. Who will approve and help by his influence and efforts?

Mr. Editor, I hope you will call attention to this object. I have no doubt but it will go into operation in certain quarters; and, for one, I will do all in my power, to carry out the measure in

OLD CHITTENDEN.

P. S. I speak not as above, in behalf of any particular paper. Almost every State in the Union has her agricultural monthly periodical. We have others which partake more of a national character, and are fitted to do good North and South—East and West. I would say, let every subscriber have his choice, according to the district of country where he is found, so far as can be done without too much distraction. In this region, we are well satisfied with the AGRICULTURIST, and this without any invidious comparisons. We like its love of truth—its impartiality—its candor—its abhorrence of cliques—and sinister ends—its sturdy, high-minded, straightforward tone—*We have confidence in its ability and integrity.* O C.

AMERICAN AGRICULTURAL ASSOCIATION

THIS Association held its regular monthly meeting on the 5th of November last, at the Historical Society's rooms. The President being absent, Hugh Maxwell, Esq., one of the Vice Presidents, took the chair, and the minutes of the last meeting were read and approved.

An improved fleam for bleeding animals was exhibited by Dr. Busteed, The lancet was so regulated that it could be made to cut to any depth, and was propelled by a spring similar to the ordinary spring lancet.

Mr. Stevens exhibited a beautiful model cast of a fat heifer, belonging to Sir Charles Tempest, which took the prize at the last Smithfield cattle show, in London. This model was sent out from England by Mr. Francis Rotch, and shows to great advantage the points of a fat Short-Horn.

A communication was read from Mr. A. B. Allen, stating that he had received a letter from Mr. Taintor, of Connecticut, now travelling in Germany. Mr. T. had forwarded a pamphlet upon the subject of sheep and wool, by Baron De Spreck. Mr. Allen presented the work to the Association. Commodore De Kay moved that it be accepted, and referred to the Corresponding Secretary, with power to have it translated.

Commodore De Kay communicated to the Society the receipt of a letter from Gen. James Semple, U. S

Senator from Illinois, containing a description of a *prairie car*, which appears to be an improvement on similar inventions. This car runs over the prairie without the necessity of a railroad. It only requires wells to supply it with water, at the distance of 15 miles. Dr. Gardener moved that Commodore De Kay be requested to prepare for the Association, a full account of the car, to be read at the next meeting.

Mr. Edward Clark stated that he had made some successful experiments for preserving diseased potatoes by the use of lime, in different forms. Some he immersed in a weak solution of chloride of lime, for twelve hours, others in lime water, and had dusted some with quick-lime, dry slacked with water. The potatoes thus treated were preserved, while others of the same lot to which lime was not applied, decayed entirely.

Dr. Grice, veterinary surgeon, read a paper upon the horse, and some of the diseases to which that animal is subject.

Mr. Doremus exhibited the electrical apparatus with which he had made some experiments upon plants, during the past season. It appears from his remarks, which were listened to with much attention, that a powerful current of electricity prevents the germination of seeds; and that with the apparatus which he had employed, he could not perceive any beneficial effects on the growth of plants.

A discussion arose upon the subject, and some interesting remarks were made by Dr. Gardner, Mr. Stevens, and Mr. R. L. Pell. The latter gentleman attributed the failure in many cases to the imperfect manner in which the apparatus was constructed, and to inattention in keeping the conducting wires, especially where they join the upper plate, perfectly dry.

The meeting adjourned, after some other business of the society was transacted, to the first Wednesday of December next, at which time several interesting things are expected to be discussed.

A NEW FACT.

It is generally believed that the eggs of weevil, deposited in grains of wheat, are hatched out in the same season before winter, or if not hatched out *then*, that they perish and do no injury to the grain. This may be the case with the white weevil, but it is not true of the black. In the fall of 1843, two years ago, I received from Virginia a shot bag filled with *Conner* wheat—an early ripening variety much valued by some farmers in that State. It was a fair, sound, beautiful sample of grain. I had just sown, before its reception, a small quantity of the same variety, and determined to keep this to sow the next year, fearing some accident to the seeded crop. The shot-bag of wheat was carefully put away in a clothes-press, so carefully that it did not again come to light till about ten days ago. On opening the bag, a number of black weevil were seen, which had come out. Others were in the act of coming out of the grain; and on cutting open grains which appeared sound, the insect was found in the grain. Do not the eggs of insects remain dormant like seeds of plants, till the proper conjuncture of circumstances for their active existence takes place? This may not be for years, or may happen the same year.

The black weevil also hatched out of grain here *of the present year's harvest*, for one of my neighbors culled from his field a small sack of wheat he thought might be a valuable kind, cleaned it out, and suspended it by a rope in an upper room of a house When he took it down to sow a few weeks ago, he found great numbers of black weevil hatched out since harvest in his sack of selected wheat. The conclusion at which I arrive is, that no season favorable to the active life of these insects has occurred here in 1843 or 1844; but that this season being favorable, not only those deposited this year, but those also remaining dormant in the grain deposited in previous years, have been excited into active existence.

Great injury has been done in this state by these insects this year, and much of the wheat cleaned out has been destroyed by black weevil; and in cases where it was got out of the straw and *left in the chaff*, it has been injured by white weevil—a circumstance causing astonishment, as leaving it in the chaff has been thought a sure preventive of injury by them. The wheat *left in the stacks* till this time is also generally injured, and in some stacks utterly destroyed by the white weevil. Can any of your correspondents tell us how to avoid these injuries to the grain after it is made? JOHN LEWIS.

Llangollen, Ky., Oct. 18, 1845.

WESTERN CALENDAR FOR DECEMBER.

In the hemp growing region, this is a busy month. The residue of the corn not cut up, should be gathered and cribbed. All the hemp not put out in October should now be spread for winter rotting; and that which was spread in October, if sufficiently watered, should be taken up and put in shocks before Christmas, so that the hemp-braker may have employment in all suitable weather during the winter. A stock of pine wood should be laid in to last at least a few weeks, so that there may be no necessity for the hands to be out in bad weather. During rainy weather, if corn shall have been gathered and put under a shelter, all hands may be engaged in shucking it out. Unless blue grass pastures have been kept in reserve for winter feeding, stock should now be fed with winter provender, and should be attended to with great care, to prevent them from falling off, not forgetting that salt is necessary for them in winter as well as summer, though a smaller quantity will answer.

In the States and Territories north of the Ohio, winter will have set in, in good earnest, and much attention should be given to their stock. If possible, their stock of all kinds should be so well kept as not to fall off in flesh. As these States and Territories raise but little hemp, there will be abundance of time for feeding and attending to their stock. During the early part of this month, every necessary preparation should be made for the economical feeding of stock, and rendering them as comfortable as possible, always recollecting that when stock are sheltered and kept warm, less food will keep them in good order.

As the winters are more severe in these States than in those farther south, and as January and February are generally very inclement, a stock of wood should be laid in, abundantly sufficient to last till some time in March—and even for a longer period, if practicable, as by having a good supply of feed ahead, the farmer will have more time in the spring to repair fences, and make the other necessary preparations for the ensuing crop. A. BEATTY

Prospect Hill, Ky

Ladies' Department.

FARMERS' WIVES.

Too much praise can scarcely be bestowed upon your fair correspondent, E. M. C., for her excellent and spirited article on the multifarious and never-ceasing employment of farmers' wives; and though

> "I have not vanity enough to think
> My praise is worth this drop of ink,"

yet I cannot forbear offering my congratulations to the whole sisterhood for having so able an advocate to undertake their cause.

If I knew her name, I would add it to my list of right-minded women, who take a proper view of things generally overlooked; who to precept add example, as doubtless she does,—being, as she so cleverly intimates, a farmer's wife. May she reap the highest reward which a mind like hers is capable of receiving—that of knowing that her suggestions have rescued *even one* of her hardly tasked countrywomen from being a mere household drudge, and raised her to the station she should fill by right as well as by nature—the *companion* of her husband and his friends; the participator in his plans and cares; and the cheerful as well as able instructress of his children. I am not a farmer's wife, and therefore cannot speak with all the wisdom gained by experience; but I know and love many who are, and have seen and thought much on the subject of the life of almost uninterrupted labor to which they are too generally exposed; and the little care bestowed upon their mental culture, or bodily comfort; and if I cannot name the individuals who sat for the speaking portraits by which she illustrates her position, I certainly know others of each separate class, who might have done so, and who could bear ample testimony to the truth of her statements. I can add little weight to the truth of her arguments in the cause she has so generously espoused; but I may perhaps be allowed to say something on a subject intimately connected with it.

Farming is a pursuit which tends to enlarge the mind, and I trust there are *few* who would wish to resist its enlightening influence—*none* so sordid as not to wish their children to be well educated; but I cannot shut my eyes to the fact that all are not willing to pay the price which would ensure its accomplishment; for next to having *female help* for the wife, no money is so grudgingly drawn from a farmer's purse as that to pay for what is called "schooling" for the children.

The mother, when at a late hour of the day she sits down to rest after the toils of the day, is too much wearied, both in mind and body, to be able to attend to the education of her children; happy if she is not called upon to minister at the bed of some suffering one, or the fatiguing, though eagerly sought endearments of "the baby." No time then for the cultivation of those mental graces which, learned at school, and practised with avidity in her hours of girlish leisure, perhaps attracted and won the man to whom all the energies of her future life are to be devoted. The prospect of the morrow's labors are enough to sadden her spirits, and crush every aspiration for their future intellectual improvement; and with a feeling near akin to that which induces the women of some heathen nations to smother their female children in their infancy, rather than suffer them to grow up to endure the trials through which they have lived, she feels that it would be a cruel kindness to cherish in her daughter tastes and habits which must be laid aside for ever, as soon as she takes upon herself the pleasures and cares of a family of her own.

It is a melancholy fact, that most of our country schools are miserably deficient in teachers capable of imparting a knowledge of anything above what the children of the poorest day laborer should be familiar with—the first rules of arithmetic, writing, and reading; and even for these they are too often but insufficiently compensated. The master may do his best, but as he cannot teach what he does not know, under such care the pupil's progress will necessarily be slow, even in children who love to learn; and this makes the parents feel less hesitation in keeping "Johnny at home a week or so, to pick up potatoes, top the corn, and pull the turnips; and Sally may as well stay too, to help mother prepare the poultry and butter for market, and mind baby;" the others are too little to go alone, and therefore they stay to add to the poor mother's cares and labor.

There is a plan which has been adopted with the most complete success in several instances where want of time, or deficiency in their own education, prevented the mothers from engaging in a task which, as it should be their chief delight, should never, except in cases of necessity, be delegated to another. Where such necessity actually exists, I propose as the best substitute, and *only as a substitute,* the adoption of the plan above alluded to; which is, that two or more near neighbors unite, and engage a governess for their little ones; by dividing the expense, they can better afford to offer a sum large enough to ensure the services of a woman of correct and firm religious and moral principles, *solid* mental endowments, and who to school love adds a love for and knowledge of country employments, housekeeping, and even of country amusements; in short, not a town-bred lady, who would start at sight of a snake or a frog, and scream at meeting a herd of cattle.

The school room should be light and airy; in the most central house, if more than two combine, and the governess herself should be accommodated, if practicable, in the house where the largest number of little ones would claim her care; and happy will that family have reason to be, who can secure such an inmate as the one who should be fit to undertake an office the most responsible that can devolve upon a human being—the care of children.

Very many young girls who are likely to be dependent on their own exertions, are at the presen time educated with the express view of their becom ing teachers, particularly in the Eastern States; consequently there will be less difficulty in procuring persons competent to the task assigned them; and I earnestly recommend to the serious consideration of all right-thinking farmers, an expedient which I know they will like the result of, even after a few months' fair trial of its effects. By such an arrangement their children remain under their own care and protection, and there is no risk of their getting contaminated by improper associations with others, which will be a great relief to an anxious parent's mind.

Eutawah. E. S.

Boys' Department.

The Schoolmaster and School.—The year has rolled round, the season of crops and their ingathering has passed away, and a new scene is to be acted, and you, my boys, are to be the actors. The first thing to be looked to and inquired about is whether the schoolmaster is abroad, and if so, what kind of a man he is? I don't ask as to his Christian or moral character; these, I take for granted, are all correct, for without these, no man is worthy of a seat in the gubernatorial chair; and with these, every man is not otherwise fitted för the office of teacher. In the first place, he ought to be "apt to teach." Something upon the subject of agriculture should be read every day, and a few minutes devoted to the comparison of things brought into the school for that purpose, showing, by demonstration, why some things are better than others, as well as that "some things can be done as well as others." Nor should this be all. He should, at proper times and on proper occasions, lead the way in your sports. It cannot be supposed that boys who have been hard at work on a farm for eight months, can sit down from six to eight hours' study every day, without causing a derangement in their physical frame. I am aware that you are up at five o'clock in the morning, and out at the barn, seeing to feeding the stock, cleaning the stables, and looking to everything in and about the barn, hog-pen, and henhouse, as well as the chores in and about the house, and all this too, over again, after school is out; but all this is not sufficient.

There are various plays in which you may engage under the eye of a master, which will give both pleasure to the mind and profit to the body. I need only name the kite and the ball, when the ground is hard and dry; the skates and hand-sled, when there is snow and ice: nor are you to take advantage of this apparent familiarity in your master; he needs the exercise and relaxation as well as yourselves, and ought to be entitled to your greater respect for this indulgence.

And now, one word about your studies. Think not that your duties end when you leave the schoolhouse; but take your geography or history home with you, and commit your lessons for the next day in the evening. More may be done during four months' schooling in the winter, than is frequently accomplished in a whole year, where nothing more is required of a boy than to be regular in his hours of attendance at school.

A Kicking Plow.—Well, boys, I want to tell you a story about plowing, which I heard a couple of old men talking over the other day, while looking at the beautiful implements of husbandry in the warehouse of the editor of the American Agriculturist.

Farmer A says to Farmer D, these are somewhat different plows from such as you and I used to plow with when we went to the woods and cut down a winding tree, and split out a mould board, and hewed off the splinters, and then nailed on the blade of an old hoe, straps of iron, sometimes an old worn-out horse-shoe, &c., &c., to keep it from wearing out. Yes, indeed, replies Farmer D, I well remember when I was about 16 years old (he is now upwards of 70), my father had a kicking plow.

Do you know what a kicking plow is, boys? Well, I will tell you. It was so constructed, that when the point of the share struck a stone or rock, of which we have plenty in my country, it would fly up behind, and the handles strike you under the chin, or sometimes the end of the mould board would bark you on the shin, making you cry out ah, or oh dear! which he set me at work with, and left home on a short journey. After getting a few thumps I began to philosophize, and pretty soon turned my oxen into the pasture, took a shovel and axe, went into the woods, dug up a small ash tree by the roots, to be sawed in two for handles, taking the next cut for the beam, and so on, until I had all the material for a new plow. By dinner time, next day, I had my plow ready for operation, and at it I went. It worked to a charm—for I had so balanced the parts that I had no more kicking. The moon shone the following evening, and I plowed on, fearing the consequences of not meeting the expectations of my father, in the quantity of land plowed on his return, which was on the third day. He came into the field immediately. "Well, David," said he, "you are turning it up pretty handsomely; but what have you there, my son?" I held down my head, and talked to the oxen. "Never mind," said he, "only be careful in turning about, for, if the oxen once get sight of your plow, it is *so handsome*, they will clear the field, and you may never see more of them!"

Necessity of Studying Chemistry.—I wish to explain to the boys the necessity of their studying this important science. Every plant that grows upon a farm has to be fed, as well as animals; and they require, or at least do better, upon particular kinds of food. When they have it, under favorable circumstances, they attain their most perfect growth. Now, how are we to find out what plants live upon, and what is their particular food? Some would at once answer, I would apply stable manure—that gives me good crops. Others would say, I would use guano, marl, lime, plaster, or I would plow under green crops, &c.; but all these modes have been tried unsuccessfully in some cases. Now, a chemist would at once ascertain the cause of the failure, and advise the best application of nourishment. He would analyze the soil, and would also analyze the plants that the farmer wished to grow. He would ascertain perhaps that there was everything requisite in the soil but lime, and that by the application of it, the land would at once be fitted to produce the crop required; or it might want potash, then ashes would be the remedy; or it might want azotised substances, and then he would recommend stable manure, &c.

Many would ask, how can a chemist do this? I answer, by analysis. Well, what is analysis? Analysis means the separation of substances so as to ascertain their composition. A chemist does this, by employing certain chemical manipulations and tests. He separates every substance that soils and plants contain. He detects and weighs them, so that every particle is accounted for, and their respective value ascertained. When this is known, the farmer is able to apply the substance required, and in that way he not only makes the proper application, but also oftentimes saves himself a great expense in purchasing manure which his farm does not require. Thus he makes money, while his neighbor loses.

FOREIGN AGRICULTURAL NEWS.

By the arrival of the steamship Britannia, we have our files of European journals to November 4th.

Markets.—*Ashes* no change. *Cotton* has further declined ¼d per lb., and was extremely dull. Stock on hand at Liverpool, on the 1st of November, 923,000 bales, against 858,000 same period last year. *Beef* still on the advance. *Pork* at old prices and in good demand. *Lard* scarce and much wanted. *Cheese* the same. Both of these articles will doubtless fall upon larger arrivals. *Flour* had advanced again, and speculation in it was very brisk. *Turpentine*, owing to speculators, a great advance. *Rice* in good demand. *Tallow* dull. *Tobacco* was firm, although a large stock on hand. *Wool*, considerable sales of United States growth at fair prices.

Money is less easy, and the rate of interest is advanced by the Bank of England to 3 per cent.

The Weather for the last few days had been fine, and the residue of the oat and other late grain harvest in the north well secured.

Amount of Inorganic Matter removed from the Soil by a Crop of Wheat.—This has been ascertained by Mr. W. Sharp, after a series of careful experiments, to be about one pound per acre.

Potatoe Rot.—This alarming disease was still spreading, and proves most disastrous in Ireland; three-fourths of the crop is supposed to be destroyed in that country. In England and on the continent its ravages seem to be somewhat stayed. The British government, some little time since, appointed Professors Kane, Playfair, and Lindley, to proceed to Ireland on a commission of inquiry respecting the rot. The following is the substance of their first report on this important subject:—

In the present communication we avoid entering into any account of the origin or nature of the disease; but we would particularly direct attention to the ascertained facts, that moisture hastens its progress, and that it is capable of being communicated to healthy potatoes when they are in contact with such as are already tainted. A knowledge of these facts determined, as they have been, by experiment, and agreeing with the scientific information obtained as to the causes and nature of the disease, leads us to propose the adoption of the following plan for diminishing the evils arising from the destructive malady:—

In the event of a continuance of dry weather, and in soils tolerably dry, we recommend that the potatoes should be allowed, for the present, to remain in the land; but if wet weather intervene, or if the soil be naturally wet, we consider that they should be removed from the ground without delay.

When the potatoes are dug out of the ground, we are decidedly of opinion that they should not be pitted in the usual way, as the circumstances under which potatoes are placed in ordinary pits are precisely those which tend to hasten their decay.

We recommend that potatoes when dug should be spread over the field, and not collected into heaps, and if the weather continue dry and free from frost, that they should be allowed to lie upon the field for a period of time not exceeding ten days.

The potatoes, after being thus dried and improved in their power of resisting disease by the means proposed, should then be sorted, by carefully separating those which show any tendency to decay. Those potatoes which appear to be sound should then be placed about 2 inches apart in a layer, and over each layer of potatoes should be placed a layer of turf ashes, or dry turf mould, or dry sand, or burned clay, to the depth of a few inches. Thus will be formed a bed of potatoes, each potatoe being completely separated from the other by a dry absorptive material; upon this bed, another layer of potatoes should be spread in like manner, and be also covered with the dry materials employed; as many as four layers may thus be placed one above the other, and when the heap is completed, it should be covered with dry clay, straw, heath, or any other material adapted to protect it from rain.

In the event of the weather becoming wet these recommendations are not applicable. In that case we would advise the potatoes to be packed in small heaps, with either straw or heath interposed, and well covered; in such a situation they would become as well dried as seems practicable under the circumstances. Where outbuildings exist, it would be advisable that this mode of temporary packing should be carried on in those places. If there be no outhouses the heaps may be left in the open field. We, however, particularly recommend that potatoes should not be removed into inhabited rooms.

With regard to the treatment of potatoes already attacked with the disease, we have to state that in this early stage of our investigation we do not feel justified in proposing any mode of positive treatment—this subject we reserve for a future report; but we may remark that exposure to light and dryness in all cases retards the progress of alterations, such as the disease in question, and we therefore suggest that all such potatoes should, as far as possible, be so treated.

We do not mean to represent that these recommendations, if carried into effect, will prevent the occurrence of disease in potatoes, but we feel assured that the decay will extend less rapidly and less extensively under these circumstances than if the potatoes, when taken from the ground, be at once pitted in the usual manner. Neither do we offer these suggestions as a final means of securing the crop, but merely as a method of retarding the progress of an enemy whose history and habits are yet but imperfectly known, whilst we endeavor to ascertain the means of more completely counteracting its injurious effects, if any such can be discovered.

Farming in China.—The horses that are used in this part of the world are a small hardy race; they are never shod, and the length of their hoofs may, in many instances which I have seen, almost vie with the finger-nails of their mandarin possessors; in fact many of them are lame and almost useless from neglect, and, being generally overloaded with fat, they roll themselves about like so many Smithfield bullocks.

Although their agricultural affairs are carried on under the most simple and original system, they manage to obtain from the land a most extraordinary quantity of provision of one sort or another, the usual number of crops which the ground produces being three in the course of the year. The only implement which I saw used was a small light plow, which a man could carry about with him on his shoulder, and which is drawn by one cow or buffalo: the rest of the operations are performed by hand, such as sowing, raking, and other minor employments.

There are no public roads through any part of the country, excepting footpaths, the people usually travelling either according to that primitive method, or by the numerous canals which intersect the whole face of the empire; consequently there are no public conveyances, excepting for despatches; these are carried on horses, which perform, as you may have seen in the account of the Expedition, about six hundred *le* per day, which is equal to about a hundred and eighty miles. The horses are kept at stations, at intervals of about ten miles, where the courier, who usually performs the whole distance, is in the habit of changing his horse as required. The mandarins perform their journeys in sedan-chairs, sending on relays of men for the purpose of carrying them by easy stages through the country from one place to another.—*Sporting Mag*

A Beautiful Altenbürger Peasant Girl.—Our informant told us of a *millionaire* peasant, whose only daughter had *alle mögliche stunden*, "all possible lessons." I asked whether she continued to assist in the work of the farm. He said, "She does not do the field work, nor feed the cattle (two ordinary employments of the female peasantry), but *natürlich*, she looks after the cows, and helps to make the butter, and so on." Happy, happy people, who can share in the progress, and even the refinements and luxuries of other classes, without a desire to quit their own! It is *that* desire, and not a taste for the comforts, or even the elegancies of life, which makes society sick and restless, and leads every man to regard his own position with envy and discontent. We have seen the young ladies who scorned the cows, and aspired to pass the magic but indefinable line which separates the farmers from the "country families" in English provincial life. But here—fortunately for the *bauernstand*, and most unfortunately for the *adel* (nobility and gentry), that line is far too accurately and inflexibly defined to yield to the assault of beauty, wealth, and "accomplishments" united. In the sphere in which she is born, the *bauermädchen* will marry and will die. And why, I pray you, might not a girl born under so benign a star as to have a healthful, active employment, and a determined sphere of duty, combined with all the leisure and opportunity that wealth and retirement can give, why might she not read Plato, or study Newton, if her taste led her so high—or pour out the abundance of her young soul in music or painting? Are we never to get beyond the age of pedants and dilettanti?—of blue stockings and "exceptional" women, who look down on the useful occupations of life, and scorn duties they have neither sense to appreciate nor virtue to fulfil? These are the monstrosities which grow out of a normal condition of ignorance and futility, and will disappear with that. At present, the whole current of prejudice is so strong against such a combination of the useful and the elegant, the simple and the luxurious, that there is little chance of one young woman in such a position failing to be spoiled for both characters; but there is no substantial reason why she should not be as simply earnest about her work as one of Homer's princesses, and yet give her leisure to noble and refined pursuits.—*Athenæum.*

To Stop the Rot in Potatoes.—Knowing the antiseptic qualities of chloride of lime, it struck me that it might prove efficacious in stopping the disease. I had a good-sized washing-tub half filled with water, to which I added half a pint of the chloride—and this mixture may be used again and again, and as many potatoes put in as the water would cover, and left in for 24 hours at least; they were taken out much hardened and whitened, and with an appearance most promising as to the probability of their untainted parts still keeping sound. Time, however, must prove this; I have no doubt that the disease is effectually checked by it. There is an earthy taste imparted by the process to the potato, but it is no greater than that often found in kidneys, and it may go off in the course of a little time.—*Ag. Gazette.*

How to know whether Grain will Vegetate.—There is one method that has been pointed out by the Highland Society, by which any person may satisfy himself concerning the sufficiency or insufficiency of the grain that he wishes to use for seed—that is, by making trials of small quantities of it in a warm exposure or in flower-pots, a considerable time before the season of sowing, numbering the grains employed in the experiment, and examining how many of them produce healthy plants. This method, if the experiment is properly conducted, must be deemed infallible for the purpose in view, and may very properly be employed by any person to ascertain the quality of the grain that he has in his own possession.—*Ib.*

Lime Enriches the Fathers, but Impoverishes the Sons.—The addition of lime to the land has, in nearly all well cultivated countries, extensively prevailed at every period of authentic history. In Europe its use has been universal, and everywhere the same observation has been commonly made, and has become a proverb in almost every language. "Lime," the proverb says, "enriches the fathers, but impoverishes the sons." Laid on in repeated doses, and for a length of time, the luxuriant crops it raises at first gradually fall off, till at length, even with the stimulus, as it is called, of larger doses, the land refuses to be excited. A like result has been observed of late years from the application of gypsum, of nitrate of soda, of common salt, or of saltpetre. Their good effects were apparent for a certain number of years, but they gradually ceased to act, and the land was afterwards believed to be even weaker and less productive than before. How are these results to be explained? Can this apparent exhaustion be prevented? Can it easily be remedied? Is it a necessary consequence of the use of lime, and of the other substances we have mentioned? Is the manure or the farmer to blame for the result? The plant carries away from the soil say ten substances. The soil is deficient in one of these, and the plant cannot grow. That one is lime or soda. You add it to the land, and your crops spring up luxuriantly. Rejoiced at this result, you add more lime, and your crops still grow well—for it requires the addition of 300 or 400 bushels to an imperial acre to add one per cent. of lime to a soil which is 12 inches in depth. But after many crops the lime at length ceases to benefit the land, the crops are even smaller than they were before lime was first added, and the farmer is at a dead stand. Now what has he been doing all this time? He has been adding one thing only in his lime—he has been carrying off TEN in his crops. Is it any wonder, then, that after a lapse of years, the land should become poor in one or more of the other nine? The iron-smelter throws into his furnace his ore and his coal, but he gets no metal until he puts in lime also. He adds a dose of lime, and he draws off a running of metal. He adds more lime, and he procures perhaps more iron. But he very soon finds that lime does no further good; he has melted out all the iron; he has exhausted his furnace; the stimulus of lime has no effect. He must add ore and coal again, and again he will obtain his periodical flows of metal. So it is with the soil. The farmer who hopes by the continual addition of one thing, to make his land produce continual good crops, hopes and acts against reason. It is his fault that the land has become exhausted, and the cure is in his own hands. Lime, therefore, does not necessarily "impoverish the son." But any treatment will ultimately make the land poorer which does not return to the soil all the things which the crops have carried off, and at least in equal proportion.—*Ib.*

Horticultural Expedition to California.—We are happy to announce the departure of Mr. Hartweg on a new expedition, on behalf of the Horticultural Society. Upon the present occasion the ground to be investigated is California, the riches of which were scarcely touched by Mr. Douglas. It is a country abounding in handsome annuals and perennials, beautiful bushes, and noble trees, all of which will be hardy enough to bear the climate of England. The expedition is to last three years, and the experience which Mr. Hartweg possesses of Spanish America, together with his zeal and activity, and the ample protection which has been extended to him by Her Majesty's Government. authorize us to congratulate the Fellows of the Society beforehand upon the valuable plants which they may expect to obtain through his means.—*Gar. Chron*

Editor's Table.

Rambouillet Sheep.—We spoke in a little note in our last number, of having sold the entire flock of these sheep belonging to Mr. Collins, of Connecticut, to Mr. L. G. Bingham, of Vermont, and that we intended to notice them when they passed through this city, as we thought they might deserve. Two years ago last June, we inspected these Rambouillets, and found them superior to anything we had before seen in the United States. Since this we have looked over a good many other Merino flocks, embracing some of the finest native bred animals in the country; and with these fresh in our minds, we aver upon this second examination of Mr. Collins' importation, that we know no other sheep equal to them for fineness, softness, felting qualities, evenness, closeness, and weight of fleece, coupled with great size of carcase, style, and an indefinable air of high breeding. They are also thrifty, hardy, and of excellent constitution. We should judge them generally to be from one-tenth to one-fifth larger in size than the average of good Merino sheep. Some of their fleeces are almost as fine as the finest Saxon, and none are of an inferior quality; they are also remarkably *free from gum;* and yet the fibres of the fleece are so fine and close together, as to render it almost impervious to the severest storms. Instead of the very objectionable *gum*, their wool is well supplied with *yolk*, equally diffused, and imparting to the fleece on opening it, a rich, bright golden color. This, when washed in tepid water, unlike gum, is easily cleansed out (being nothing but a pure animal soap), leaving the wool soft, and of a most beautiful clear white.

These sheep will make an excellent cross on the Merino flocks of Vermont, and we recommend them to the attention of the breeders in that quarter. They are a most valuable importation, and Mr. Collins deserves the thanks of the country for his spirit and liberality in making it. They are pure Merinos, bred in the Royal flock at Rambouillet, one of the best probably in Europe. The originals of these superb animals, by permission of the king, were chosen from the best flocks in Spain, about 60 years ago, and have since been bred by the French government with the greatest care.

Travels in North America in the Years 1841-2; with Geological Observations on the United States, Canada, and Nova Scotia. By Charles Lyell In two volumes, with colored maps and engravings. Wiley & Putnam, 161 Broadway. Price $1.75. We may congratulate America upon the great change which has latterly taken place in the race of travellers who come among us, and see fit to publish their notes upon this country. Foremost among these eminent and candid foreigners, stands the author of this work. Mr. Lyell has an enlarged and unprejudiced mind, and takes a fair view of things, morally and philosophically. His scientific notes are of great value, and make us rather proud of our country. He thinks America, geologically, much older than Europe, so that we may now, with some show of reason, change the titles of the new and old world with her. We heartily commend this work of Mr. Lyell's to our readers, and assure them that its perusal will be an intellectual treat. When he finds fault, he generally does it with the candor of a liberal and enlightened mind; and such things as deserve praise he speaks of with apparent pleasure.

Fine Wool.—We have received very beautiful samples of Saxony wool from the flock of Mr. Nathan Linton, of Lebanon, Ohio. We understand that Mr. L. is breeding his animals with great care, and that he has lately procured a buck from the celebrated flock of the late H. D. Grove, of this State, with a view o making a fresh cross upon it.

Essay on Guano. By J. E. Teschemacher. We are indebted to Saxton & Kelt, of Boston, and Saxton & Huntington, of this city, for copies of this pamphlet of 51 pages. It is an excellent work, by one who has paid great attention to the subject. The account of experiments given in it of the guano are such as were made in this country, which renders the pamphlet much more valuable for Americans. For sale by Saxton & Miles, 205 Broadway.

Stock for the South.—Mr. Vail, of Troy, recently shipped a superb bull calf, about three months old, to Col. Wade Hampton, of Columbia, South Carolina. It was got by his imported Wellington, out of imported Lady Barrington, both of which animals are from the celebrated herd of Mr. Bates, of Yorkshire, England. The above calf is a beautiful red color, of fine points, and shows high breeding. The price paid for him is $300. Wellington has now gone to Black Rock, to serve a year in the fine herd of Mr. L. F. Allen, of that place. Mr. A. used Symmetry last year, since sold by Mr. Vail, to Col. Sherwood, of Auburn, for $300. These are prices such as no other man in the State has obtained; and however the committees of Agricultural Societies may decide, good breeders will exercise their own judgments in regard to selecting their stock, and paying such prices as they think proper. We congratulate these gentlemen on their purchases. The calf was selected for Col. Hampton, by A. G. Summer, Esq., of Columbia, S. C., when on here last fall, he being a capital judge of stock. Quite a lot of fine Cotswold sheep, from Mr Sotham's flock, went out to South Carolina at the same time with the Lady Barrington calf. These were designed for Messrs. Hampton, Summer, and others. Quite a movement has been made in sheep this year, South and West. We have shipped to a considerable number of gentlemen there, and have several more orders to fill. Dr. Robert R. Reed, of Washington, Pennsylvania, has been on here purchasing a fine lot of Saxons. Mr. Beach, also, of Ohio, has ordered of the Grove flock through us. We have letters from Mr. Taintor, of Connecticut, now travelling in Germany, stating that he shall consign to us, early in the spring, a lot of superb Saxons, for Mr. Samuel C. Scoville, of Salisbury, Ct. These facts indicate that stock matters are looking up again. We have no doubt that breeders of choice animals will hereafter obtain fair prices for all they may have to sell for several years. Mr. Sotham has sold his superb cart-horses to the Messrs. Eaton, of Columbus, Ohio; and to others quite a number of Hereford cattle, and Cotswold sheep.

Cotton, from the Pod to the Factory.—This is an admirable little work, price 12½ cents, containing the history, gathering, marketing, and manufacturing of the great staple of the South.

Great Corn Crop.—Mr. Paschall Morris, of Allerton Farm, near Westchester, Pa., raised a crop of ten acres of corn the past season, averaging *one hundred and one bushels and three pecks* per acre. This crop was awarded the first premium by the Chester and Delaware County Agricultural Society. It was measured by Messrs. John North, Jr., and James Painter, the committee appointed for that purpose. The committee say that a part of the field yielded at the rate of 110 bushels per acre.

To Correspondents.—Agricola, Henry J. Canfield, Wm. Leavenworth, Querk, and E. S. are received. The article on Herefords, by Mr. Stevens, being rather a long one and to be followed by others, we let it lie over till January, so as to have the series complete in Vol. V. The first, in the September No., was merely prefatory.

REVIEW OF THE MARKET.

PRICES CURRENT IN NEW YORK, NOVEMBER 26, 1845.

ASHES, Pots,	per 100 lbs.	$3 87½	to	$3 94
Pearls,	do.	4 12½	"	4 19
BALE ROPE,	lb.	5	"	7
BARK, Quercitron,	ton,	26 00	"	24 50
BEANS, White,	bush	1 12	"	1 25
BEESWAX, Am. Yellow,	lb.	28	"	33
BOLT ROPE,	do.	12	"	13
BONES, ground,	bush.	40	"	55
BRISTLES, American,	lb.	25	"	65
BUTTER, Table,	do.	16	"	25
Shipping,	do.	9	"	13
CANDLES, Mould, Tallow,	do.	9	"	11
Sperm,	do.	25	"	38
Stearine,	do.	20	"	25
CHEESE,	do.	5	"	10
COAL, Anthracite,	2000 lbs.	5 00	"	6 00
CORDAGE, American,	lb.	11	"	12
COTTON,	do.	6	"	10
COTTON BAGGING, Amer. hemp,	yard,	13	"	14
Kentucky	do.	12	"	13
FEATHERS,	lb.	26	"	34
FLAX, American,	do.	7	"	8
FLOUR, Northern and Western,	bbl.	6 37	"	6 87
Fancy,	do.	7 00	"	7 62
Southern,	do.	6 37	"	6 87
Richmond City Mills,	do.	7 25	"	7 75
Rye,	do.	4 37	"	4 50
GRAIN—Wheat, Western,	bush.	1 40	"	1 50
Southern,	do.	1 35	"	1 45
Rye,	do.	83	"	85
Corn, Northern,	do.	82	"	85
Southern,	do.	80	"	81
Barley,	do.	67	"	69
Oats, Northern,	do.	52	"	53
Southern,	do.	46	"	48
GUANO,	100 lbs	2 25	"	3 00
HAY, in bales,	do.	75	"	86
HEMP, Russia, clean,	ton,	187 00	"	190 00
American, water-rotted,	do.	105 00	"	185 00
American, dew-rotted,	do.	75 00	"	125 00
HIDES, Dry Southern,	lb.	9	"	11
HOPS,	lb.	32	"	35
HORNS,	100	1 00	"	7 00
LEAD.	lb.	4 75	"	4 88
Sheet and bar	do.	4½	"	5¼
MEAL, Corn,	bbl	3 87	"	4 12
Corn,	hhd.	15 00	"	15 25
MOLASSES, New Orleans,	gal.	23	"	27
MUSTARD, American,	lb.	16	"	31
NAVAL STORES—Tar,	bbl.	1 87	"	2 00
Pitch,	do	1 25	"	1 38
Rosin	do.	1 80	"	1 13
Turpentine,	do.	3 50	"	4 25
Spirits Turpentine, Southern,	gal.	63	"	75
OIL, Linseed, American,	do.	67	"	68
Castor,	do.	57	"	68
Lard,	do.	70	"	75
OIL CAKE,	100 lbs.	1 00	"	1 50
PEAS, Field,	bush.	1 50	"	2 00
PLASTER OF PARIS,	ton,	2 50	"	2 62
Ground, in bbls.,	of 300 lbs.	1 12	"	1 25
PROVISIONS—Beef, Mess,	bbl.	7 00	"	9 00
Prime,	do.	4 50	"	5 50
Smoked,	lb.	6	"	9
Rounds, in pickle,	do.	4	"	6
Pork, Mess,	bbl.	12 00	"	14 12
Prime,	do.	9 00	"	11 00
Lard,	lb.	8	"	8½
Bacon sides, Smoked,	do.	3	"	4
In pickle,	do.	3	"	4
Hams, Smoked,	do.	6	"	10
Pickled,	do.	4	"	7
Shoulders, Smoked,	do.	5	"	6½
Pickled,	do.	4½	"	5
RICE,	100 lbs.	4 75	"	5 50
SALT,	sack,	1 35	"	1 40
Common,	bush.	20	"	35
SEEDS—Clover,	lb.	10	"	11
Timothy,	7 bush.	14 50	"	21 00
Flax, rough,	do.	10 00	"	10 13
clean,	do.	11 00	"	11 12
SODA, Ash, cont'g 80 per cent. soda,	lb.	3	"	3
Sulphate Soda, ground,	do.	1	"	—
SUGAR, New Orleans,	do.	5	"	8
SUMAC, American,	ton,	35 00	"	37 56
TALLOW	lb.	7	"	8
TOBACCO	do.	3	"	7
WHISKEY, American,	gal.	20	"	29
WOOL, Saxony,	lb.	35	"	50
Merino,	do.	30	"	35
Half-blood,	do.	25	"	30
Common,	do.	20	"	52

NEW YORK CATTLE MARKET—Nov. 24.

At Market, 1397 Beef Cattle, 55 Cows and Calves, and 2500 Sheep and Lambs.

PRICES.—Beef Cattle were in demand at last week's rates, which we renew. We give $4.50*a*$6, to include all qualities.

COWS AND CALVES.—All sold at $18*a*$30.

SHEEP AND LAMBS.—The former we quote at $1 25*a*$3.50, and the latter, at 75*a*$2.25. Left over, 200.

HAY—Is quick at $30*a*$33 per ton for loose.

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REMARKS.—*Ashes* slow of sale. *Cotton* is much depressed, and a decline of fully ¼ of a cent. Export from the United States since 1st September last, 184,458 bales; same time last year, 203,485; same time year before, 89,425. *Flour.* In this article there has been great excitement since the arrival of the Britannia, and prices went up as high as $7.00 to $7.25, for common brands. It has now fallen fully five shillings per barrel, from this high price, with a steady demand. We are confident, however, that these prices cannot be maintained, as shipments to Europe will be attended with a heavy loss. It is a great misfortune for the American market to be so excited. We advise the farmers to sell now as rapidly as possible, and be sure and *get their pay*, for these prices will not last long. The arrivals for the past month have been very large. *Corn Meal* is scarce. *Wheat* a slight downward tendency, as well as all other kinds of grain. *Molasses* in good request. *Naval Stores* in active demand, at a considerable advance. *Provisions* generally little doing. *Rice* brisk. *Sugar* dull. In other articles, little worthy of comment.

Money remains plenty, from 5½ to 7 per cent.

Stocks.—Steady, with few transactions.

The Weather generally has been very pleasant and mild the past month. Indeed, we think the past one of the most delightful Autumns we ever knew. The Fall feed is good, and much of the stock in this vicinity still get their living from the pastures.

The Crops.—Nothing new remains but sugar and cotton, and from them we hear good accounts. We congratulate the husbandman on the prosperous close of the year, and, notwithstanding the drouth, we have reason to be thankful to Providence for an average abundance of crops.

TRANSACTIONS OF THE N. Y. STATE AG. SOCIETY. Just as our paper was made up for the press, we received a proof sheet in advance of publication of the December No. of the Cultivator, in answer to the article in our last signed, "A Member." As it was accompanied with a threat and demand, we shall not insert it till these are withdrawn. We said under the first article, of "A Member," that our columns were open to a reply; but these are now effectually closed by the attitude that the editor of the Cultivator has most unwisely, in our opinion, seen fit to assume.

☞ TO SUBSCRIBERS.—We shall send the January No. for 1846, to all present subscribers. Such as do not wish the paper continued, will please return the No. immediately, with the name and Post-Office address, when it will be stopped. Such as do not *immediately return the* No. *unmutilated*, we shall consider as subscribers to the fifth volume. We wish expressly, that no remittances be made by Post Office drafts. Subscribers will please enclose the amount of subscription direct to the publishers.

PRAIRIE FARMER.

Volume VI., 1846. Published monthly, at *Chicago, Ill.*, at $1 per annum, in advance. Containing THIRTY-TWO large octavo pages, besides a cover, on which advertisements, &c., are inserted. The matter being chiefly original, and supplied by practical correspondents from all parts of the West, Eastern readers will not find much copied from other agricultural papers; and at the same time it furnishes more information concerning the West than can be obtained from any other source. Printed in good style, and embellished with engravings.

Subscriptions will be received by Saxton & Miles, 205 Broadway, New York, from those to whom it will be more convenient than to order it by mail.

PERUVIAN GUANO.

Any quantity of this excellent fertilizer on hand, for sale at the following prices:

100 bags or more, 2½ cents per lb.
Over 50 and under 100 bags 2⅝ do.
Over 10 and under 50 do. 2¾ do.
Less than 10 do. 3 do.

The bags average about 150 lbs. each.

A. B. ALLEN, 187 Water Street.

MAGNOLIAS FOR SALE.

Nurserymen and Gardeners, by making immediate application to A. B. ALLEN, at the New York Agricultural Warehouse, No 187 Water street, can be furnished early next spring with trees of the Magnolia Macryphila and Grandiflora, at $50 per thousand. They will be carefully packed in boxes containing 500 or 1000 each, and will be forwarded from the South by the way of the Ohio river, as early as navigation opens, and delivered in the original packages, in good order, to purchasers.

SOLON ROBINSON, Agent for the Owner.

October, 1845.

AGRICULTURAL WAREHOUSE.

The Subscriber keeps constantly on hand the best and most complete assortment of Agricultural Implements, Field Seeds, and Fertilizers, to be found in the city. A few of the articles he enumerates below, viz. :—

Plows.—Cotton, Rice, and Sugar Plows,..........$2.00 to 4.50

Some of these plows are made expressly for light sandy soils, others for a loam or stiff clay, which they work in a most superior manner.

One-horse Plows for the North, with single and double mould boards. These last are admirable to work in between the rows of root crops and corn, when not over 3½ feet apart, as they turn the furrow both ways to the crop at once, thus doing double the work of a single mould board,........................3.00 to 5.00

Rice Trenching Plow. This does the same work as the hands perform on a rice plantation with trenching hoes, and equally as well, and with five times the rapidity that a negro can work. No rice planter should be without them,................6.00 to 6.50

Two and Four-horse Plows, of different sizes, and for all kinds of soil—stony, sandy, loam, or clay ; also for stubble and sward land. Some of these have crane-clevies attached to them, thus enabling the off horse in plowing a wet meadow, to walk on the solid sward, instead of a miry fresh plowed furrow. Others are adapted to trench plowing, enabling the farmer to turn up virgin earth in a deep soil. These plows are strong enough to grub up bushes with their roots, heavy bogs, &c. They likewise answer for partial ditching,.................................5.00 to 20.00

Paring Plows for shaving off the turf preparatory to burning,.. } 15.00

Harrows. A complete assortment of square, triangle, and double triangle folding harrows, with wrought iron or steel-pointed teeth. The last are very superior,..........6.00 to 16.00

Rollers of various kinds, wood, stone, or iron, single or double, and to move by hand or horse power,...............16.00 to 65.00

Cultivators, hand or horse, of various patterns,.......3.00 to 8.00

Horse Powers. Endless chain single horse,..............85.00
" do. two-horse,.................110.00
" Cast-iron, single or two-horse,...............50 to 60.00
" do. four-horse,..........................95.00

Grain Threshers.....$25.00 to 40.00. Beaters,..20.00 to 25.00
Threshers, with Separators,...................35.00 to 50.00
Clover Mills,.......................................30.00 to 65.00
Fanning Mills........ ....12.00 to 27.00
Burr Stone Mills, for grinding grain,............30.00 to 125.00

Cast-Iron Mills, a new and most admirable invention. They work either by hand or other power, and are well adapted for grinding all kinds of grain, except flouring wheat for market,..7.00 to 15.00

Corn and Cob Crushers, for grinding cob in the ear,30.00 to 35.00
Sugar Crushers,..7.50 to 20.00
Paint Mills of various patterns,........................7.00 to 17.00

Corn Shellers and Huskers. Will shell from 100 to 200 bushels of ears per hour, in the best manner. These work by horse or other power,.......... ....25.00 to 50.00

The same worked by hand, made of wood or cast iron,.. } 7.00 to 10.00

Vegetable Cutters, for slicing up potatoes, beets, turnips, &c.. } 8.50 to 12.00

Straw Cutters. Common hand kind,.............3.00 to 8.00
" Hovey's, with spiral blades,..............10.00 to 30.00
" Stevens' do. cut from 1 inch to 1½ in. long,.10.00 to 15.00
Corn Stalk Cutters, Thorn's, Sinclair's and others,25.00 to 45.00
Cotton Gins of various patterns,..................25.00 to 150.00
Ox, Road, or Dirt Scrapers,.......................4.50 to 5.00

Self-Acting Cheese Press, a neat and very superior and simple article .... } 6.50

Seed Sowers, various patterns,.......................10.00 to 16 00
Horticultural Tool Chests, complete,........................18 00
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